



## Project Reference List for RADOX Traction wires and cables

Huber + Suhner is a world leader in the manufacture and supply of **halogen free, flame retardant** traction wires and cables for rolling stock applications. The following project references is evidence of Huber + Suhner's leadership in the global railway market.

| Country   | Project / Vehicle Type | System Type       | Year in Service | Manufacturer                        | No. of Vehicles / Trains | H+S Product                                            |
|-----------|------------------------|-------------------|-----------------|-------------------------------------|--------------------------|--------------------------------------------------------|
| Algier    | SNTF Algier            | FLIRT EMU         | 2008            | Stadler Switzerland                 | 64                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, |
| Australia | Darling Harbour        | Monorail          | 1987            | VonRoll                             | 24                       | Radox 125                                              |
| Australia | Vic Rail               | LRV               | 1993            | Bombardier                          | 40                       | Radox 125                                              |
| Australia | Queensland Rail        | DE locomotive     | 1995            | Goninan                             | 25                       | Radox 4GKW-SFH                                         |
| Australia | National Rail Corp.    | Diesel Locomotive | 1997            | Goninan (Aust.)<br>General Electric | 120                      | RADOX 4 GKW-SFH                                        |
| Australia | WestRail               | EMU               | 1998            | Bombardier                          | 99                       | Radox 3GKW, 4GKW-AX                                    |
| Australia | Queensland Rail        | Tilt Train        | 2000            | EDI Rail                            | 21                       | Radox 3GKW, 4GKW-AX, GKW-LW/S                          |
| Australia | Queensland Rail        | DE locomotive     | 2001-2009       | Downer EDI Rail                     | 84                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC                      |
| Australia | CityRail               | EMU               | 2002            | Downer EDI Rail                     | 80                       | Radox GKW-LW/S, Radox 4GKW-AX                          |



| Country   | Project / Vehicle Type   | System Type    | Year in Service | Manufacturer      | No. of Vehicles / Trains | H+S Product                                      |
|-----------|--------------------------|----------------|-----------------|-------------------|--------------------------|--------------------------------------------------|
| Australia | RailCorp / Millennium    | EMU            | 2002-2005       | Downer EDI Rail   | 140                      | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC, Databus       |
| Australia | RailCorp / Hunter Valley | DMU            | 2003-2005       | United Goninan    | 21                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC                |
| Australia | RailCorp                 | EMU            | 2004            | United Goninan    | 60                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC, Databus       |
| Australia | Vic Rail                 | DMU            | 2004            | Bombardier        | 21                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC                |
| Australia | WestRail                 | EMU            | 2004            | Bombardier        | 48                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC, Databus       |
| Australia | WestRail                 | DMU            | 2004            | United Goninan    | 18                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC                |
| Australia | Pacific National         | DE Locomotives | 2006-2009       | Downer EDI Rail   | 28                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC                |
| Australia | RailCorp / OSCAR         | EMU            | 2006-2009       | United Group Rail | 120                      | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC, Databus, Coax |
| Australia | Vic Rail / Velocity      | EMU            | 2007            | Bombardier        | 32                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC, Railcat       |



| Country   | Project / Vehicle Type | System Type   | Year in Service | Manufacturer      | No. of Vehicles / Trains | H+S Product                                                                          |
|-----------|------------------------|---------------|-----------------|-------------------|--------------------------|--------------------------------------------------------------------------------------|
| Australia | WestRail / PTA         | SMU           | 2007            | Bombardier        | 60                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC, RailCat                                           |
| Australia | Queensland Rail        | SMU           | 2007-2008       | Bombardier / EDI  | 109                      | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC, RailCat                                           |
| Australia | Vic Rail               | DE Locomotive | 2007-2008       | Downer EDI Rail   | 15                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC                                                    |
| Australia | Rio Tinto              | DE Locomotive | 2009            | Downer EDI Rail   | 2                        | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC                                                    |
| Australia | Queensland Rail        | DE Locomotive | 2009-2010       | United Group Rail | 112                      | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC                                                    |
| Australia | Australian Rail Group  | DE Locomotive | 2009-2010       | United Group Rail | 8                        | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC                                                    |
| Australia | Queensland Rail        | IMU           | 2009-2011       | Bombardier / EDI  | 18                       | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC, RailCat                                           |
| Australia | RailCorp / PPP         | EMU           | 2009-2013       | Downer EDI Rail   | 624                      | Radox 3GKW, 4GKW-AX, GKW-LW/S EMC, Databus, FO, Cable harnesses, SencityRail Antenna |
| Austria   | Badner Bahn Vienna     | Commuter      | 1996            | Bombardier        |                          | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable                                       |



| Country      | Project / Vehicle Type | System Type        | Year in Service | Manufacturer        | No. of Vehicles / Trains | H+S Product                                           |
|--------------|------------------------|--------------------|-----------------|---------------------|--------------------------|-------------------------------------------------------|
| Austria      | Hotel Train            |                    | 1990            | ABB-AEG-Siemens     |                          | RADOX 4 GKW-AX, GKW control cable                     |
| Austria      | Montafoner Bahn        | EMU                | 2000            | Stadler Switzerland | 2                        | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable        |
| Austria      | Tram Graz Cityrunner   | LRV                | 2000            | Bombardier Austria  | 18                       | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable        |
| Austria      | Tram Linz              | LRV                | 1999            | Bombardier Austria  | 39                       | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable        |
| Austria      | Vienna Line U6         | Metro              | 2002            | Bombardier          |                          | RADOX 3 GKW, GKW control cable                        |
| Austria      | Linzer Lokalbahn       | EMU                | 2000 - 2005     | Stadler Switzerland | 14                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Austria ÖBB  | RH2070                 | Diesel Locomotives | 2002-2004       | Vossloh Germany     | 80                       |                                                       |
| Belgium      | HLD 77                 | Diesel Locomotives | 2001            | Vossloh Germany     | 80                       | RADOX 3 GKW, RADOX 4 GKW-LW/S EMC                     |
| Belgium SNCB | HLD 77                 | Diesel Locomotives | 2002-2004       | Vossloh Germany     | 170                      | RADOX 3 GKW, RADOX 4 GKW-LW/S EMC                     |



| Country      | Project / Vehicle Type | System Type | Year in Service | Manufacturer                        | No. of Vehicles / Trains | H+S Product                                           |
|--------------|------------------------|-------------|-----------------|-------------------------------------|--------------------------|-------------------------------------------------------|
| Belgien SNCB | Desiro Mainline        | EMU         | 2009-(2014)     | Siemens Germany                     | 305                      |                                                       |
| Brasil       | Desiro São Paulo       | EMU         | 2000            | Siemens                             |                          | RADOX 3 GKW, RADOX 4 GKW-AX, RADOX GKW-LW/S           |
| Brasil       | Retrofit Ferroban      | Locomotives | 2000            | Ferroban Brasil                     |                          | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Brasil       | TUE Brasil             | EMU         | 1999            | Siemens Germany / TVT Nova Slovenia | 40                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Brazil       | Salvador               | EMU         | 2007            | Rotem Korea                         | 24                       | 3GKW, 4GKW-AX, 9GKW-AX, GKW-LW/S EMC                  |
| Bulgaria     | BDZ                    | EMU         | 2007-2008       | Siemens                             | 26                       |                                                       |
| China        | Transrapid             | Maglev      | 2001            | Thyssen Germany                     | 16                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| China        | CRH5                   | EMU         | 2006            | Changchun Railway Co.               | 480                      | Coax Cable                                            |
| China        | Changchun Metro        | EMU         | 2007            | Changchun Railway Co.               | 60                       | Railcat                                               |



| Country | Project / Vehicle Type | System Type | Year in Service | Manufacturer                     | No. of Vehicles / Trains | H+S Product                                                                  |
|---------|------------------------|-------------|-----------------|----------------------------------|--------------------------|------------------------------------------------------------------------------|
| China   | Beijing Airport        | EMU         | 2007            | Changchun Railway Co.            | 40                       | 3GKW, GKW-LW/S, GKW-LW/S EMC, Databus, 3GKW/S FR                             |
| China   | CRH1                   | EMU         | 2007            | Bombardier Sifang Transportation | 160                      | Radox 3GKW; Radox 4GKW-AX; Radox GKW-LW/S EMC; RF cable                      |
| China   | CRH3                   | EMU         | 2008            | CRC-Tangshan                     | 480                      | Radox 3GKW +EMC +FR 4/9GKW AX + EMC, GKW-LW/S, TENUIS, GKW-LW/S EMC, Databus |
| China   | Hexie 5                | Loco        | 2008            | Dalian Locomotive                | 500                      | 9GKW, GKW-LW/S EMC, Databus                                                  |
| China   | Changchun2             | EMU         | 2008            | Changchun Railway Co.            | 60                       | Radox Railcat                                                                |
| China   | Tianjin                | EMU         | 2008            | Changchun Railway Co.            | 10                       | Radox Railcat                                                                |
| China   | Iran                   | EMU         | 2008            | Changchun Railway Co.            | 455                      | Radox Railcat, Coax Cable                                                    |
| China   | Iran                   | Double Deck | 2008            | Changchun Railway Co.            | 156                      | Radox Railcat, Databus, Coax Cable                                           |
| China   | Shanghai Line 10       | EMU         | 2009            | Satco                            | 120                      | 4GKW, GKW-LW/S EMC                                                           |



| Country | Project / Vehicle Type    | System Type | Year in Service | Manufacturer                    | No. of Vehicles / Trains | H+S Product                                                                  |
|---------|---------------------------|-------------|-----------------|---------------------------------|--------------------------|------------------------------------------------------------------------------|
| China   | Shanghai Line 6+8         | EMU         | 2009            | Satco                           | 83                       | Radox Railcat                                                                |
| China   | Shanghai Line 6+8         | EMU         | 2009            | Changchun Railway Co.           | 90                       | Radox Railcat                                                                |
| China   | Shenzhen Line 1 Ext.      | EMU         | 2009            | Zhuzhou Electric Locomotive Co. | 156                      | Radox 3GKW/S EMC; Databus                                                    |
| China   | Beijing Line 4            | EMU         | 2009            | Sifang Locomotive Co.           | 198                      | Radox 3GKW; Radox 4GKW-AX; Radox 4GKW-AX/S EMC ; Radox GKW-LW/S EMC; Databus |
| China   | Guangzhou Line 4 & Line 5 | EMU         | 2009            | Sifang Locomotive Co.           | 300                      | Radox 3GKW                                                                   |
| China   | Shenzhen                  | EMU         | 2009            | Changchun Railway Co.           | 192                      | Radox Railcat, Coax cable                                                    |
| China   | Shanghai Line 11          | EMU         | 2009-10         | Zhuzhou Electric Locomotive Co. | 348                      | Radox 4GKW-AX EMC-L; Databus                                                 |
| China   | Guangzhou Line 2 & Line 8 | EMU         | 2009-10         | Zhuzhou Electric Locomotive Co. | 162                      | Radox 3GKW/S EMC; Radox 4GKW-AX EMC-L Databus                                |
| China   | HK Metro                  | Light Rail  | 2009-10         | Nanjing Puzhen                  | 24                       | Radox 3GKW; Radox 4GKW-AX; Radox GKW-LW/S EMC                                |



| Country       | Project / Vehicle Type | System Type       | Year in Service | Manufacturer              | No. of Vehicles / Trains | H+S Product                                                      |
|---------------|------------------------|-------------------|-----------------|---------------------------|--------------------------|------------------------------------------------------------------|
| Egypt         | Thyssen Henschel       | Diesel Locomotive | 1999            | Adtranz                   |                          | RADOX 125, RADOX 4 GKW-AX                                        |
| England       | A-Stock Refurbishment  | EMU               | 1998            | Adtranz                   |                          | RADOX GKW-RSE                                                    |
| England       | Croydon                | LRV               | 2000            | Bombardier                |                          | RADOX 3 GKW, GKW control cable                                   |
| England / FGE | Desiro, cl. 360        | EMU               | 2003            | Siemens Germany + Austria | 1200                     | RADOX 3 GKW, 4/9 GKW-AX, GKW-LW/S and EMC, FR cables             |
| England / SWT | Juniper                | EMU               | 1998            | Alstom UK                 | 120                      | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC            |
| England / SWT | Desiro, cl. 444        | EMU               | 2003            | Siemens UK                | 45 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, FR cables |
| England / SWT | Desiro, cl. 450/0      | EMU               | 2003            | Siemens UK                | 100 train-sets           | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, FR cables |
| England / SWT | Desiro, cl. 450/2      | EMU               | 2003            | Siemens UK                | 32 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, FR        |





| Country       | Project / Vehicle Type | System Type | Year in Service | Manufacturer  | No. of Vehicles / Trains | H+S Product                                           |
|---------------|------------------------|-------------|-----------------|---------------|--------------------------|-------------------------------------------------------|
|               |                        |             |                 |               |                          | cables                                                |
| England / CSE | Electrostar cl. 375/7  | EMU         | 2003            | Bombardier UK | 15 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / CSE | Electrostar cl. 375/8  | EMU         | 2003            | Bombardier UK | 30 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / CSE | Electrostar cl. 376    | EMU         | 2004            | Bombardier UK | 36 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / HT  | Turbostar, cl. 170/2   | DMU         | 1999            | Adtranz UK    | 3 train-sets             | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / HT  | Turbostar, cl. 170/3   | DMU         | 2004            | Bombardier UK | 4 train-sets             | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / HT  | Meridian, cl. 222      | DMU         | 2005            | Bombardier UK | 4 train-sets             | coaxial cables                                        |
| England / MML | Turbostar, cl. 170/1   | DMU         | 1999            | Adtranz UK    | 17 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / MML | Meridian, cl. 222      | DMU         | 2004            | Bombardier UK | 23 train-sets            | coaxial cables                                        |



| Country        | Project / Vehicle Type      | System Type | Year in Service | Manufacturer   | No. of Vehicles / Trains | H+S Product                                           |
|----------------|-----------------------------|-------------|-----------------|----------------|--------------------------|-------------------------------------------------------|
| England / SC   | Electrostar, cl. 377/1      | EMU         | 2003            | Bombardier UK  | 139 train-sets           | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / SC   | Electrostar, cl. 377/2      | EMU         | 2003            | Bombardier UK  | 15 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / SC   | Turbostar, cl. 170/7        | DMU         | 2003            | Bombardier UK  | 12 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / SR   | Turbostar, cl. 170/4        | DMU         | 2000            | Adtranz UK     | 24 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / SR   | Juniper, cl. 334            | EMU         | 2000            | Alstom UK      | 40 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / SR   | Turbostar, cl. 170/4        | DMU         | 2004            | Bombardier UK  | 28 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England / WCML | Virgin West Coast Main Line | EMU         | 2000            | Alstom England | 477                      | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| England        | Juniper, Gatwick Express    | EMU         | 1998            | Alstom UK      | 64                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX                  |



| Country | Project / Vehicle Type      | System Type | Year in Service | Manufacturer | No. of Vehicles / Trains | H+S Product                                        |
|---------|-----------------------------|-------------|-----------------|--------------|--------------------------|----------------------------------------------------|
|         |                             |             |                 |              |                          | GKW-LW/S and EMC                                   |
| England | Heathrow Express            | Commuter    | 1999            | Siemens      |                          | RADOX 4 GKW-AX FR                                  |
| England | Jubilee Line Extension      | Metro       | 1999            | GPT          |                          | RADOX GKW-RSE, RADOX 125                           |
| England | LUL Jubilee Line            | Metro       | 1999            | GEC-Alstom   |                          | RADOX GKW-RSE                                      |
| England | LUL Jubilee Line Extension  | Metro       | 1999            | Drake+Scull  |                          | RADOX FR, RADOX 125, RADOX GKW-RSE, RADOX EP-125-A |
| England | LUL Northern Line           | Metro       | 2000            | GEC-Alstom   |                          | RADOX GKW-RSE                                      |
| England | LUL Piccadilly Line         | Metro       | 2001            | Bombardier   |                          | RADOX GKW-RSE                                      |
| England | LUL Refurbishment Programme |             | 2001            | LUL          |                          | RADOX GKW-RSE                                      |
| England | Railtrack Marck II          | Coaches     | 2000            | Bombardier   |                          | RADOX 4 GKW-AX                                     |
| England | HSBC Rail UK Ltd.<br>TRL-DS | HST         | 2008            | Hitachi      | 168                      | 3GKW BS FR, 4GKW-AX BS FR, 3GKW/S RW EMC           |
| England | MerseyRail                  | 507 / 508   | 2006 / 2007     | Alstom       |                          | Various                                            |
| England | 465 / 466                   | 465 / 466   | 2007 / 2009     | Bombardier   | 50                       | Various                                            |



| Country | Project / Vehicle Type              | System Type      | Year in Service | Manufacturer                      | No. of Vehicles / Trains | H+S Product                                           |
|---------|-------------------------------------|------------------|-----------------|-----------------------------------|--------------------------|-------------------------------------------------------|
| England | CCTV                                | DMU              | 2009 / 2010     | DeltaRail                         | 48                       | Various                                               |
| England | GSM-R                               | Various Scotrail | 2008 Onwards    | Siemens                           | 28                       | Various                                               |
| England | LUL Northern and Jubilee Lines TBTC |                  | 2007 / 2009     | Alstom                            |                          | GKW / RSE                                             |
| England | Various                             | OTMR             | 2005 / 2007     | Arrowvale                         |                          | Various                                               |
| England | LUL                                 | TPWS             | 2004 / 2007     | Alstom                            |                          | Varios                                                |
| England | First Great Western                 | Volo             | 2009 / 2010     | Transys                           |                          | Various                                               |
| England | MerseyRail                          | 507 / 509        | 2006 / 2008     | Alstom                            |                          | Varios                                                |
| England | First Great Eastern                 | EMU              | 2000-2001       | Siemens Germany                   | 21                       |                                                       |
| England | Angel Trains                        | EMU              | 2000-2002       | Siemens Germany                   | 77                       |                                                       |
| England | South West Trains                   | EMU Class 444    | 2003-2006       | Siemens Austria                   | 45                       |                                                       |
| England | South West Trains                   | EMU Class 450    | 2003-2006       | Siemens Germany                   | 110                      |                                                       |
| England | West Coast Mainline                 | EMU              | 2004-2005       | Siemens Germany                   | 30                       |                                                       |
| Finland | VrSr 2                              | Locomotives      | 2000            | Bombardier Switzerland / Talgo FI | 40                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |



| Country      | Project / Vehicle Type      | System Type          | Year in Service | Manufacturer                       | No. of Vehicles / Trains | H+S Product                                           |
|--------------|-----------------------------|----------------------|-----------------|------------------------------------|--------------------------|-------------------------------------------------------|
| Finland      | Junakalusto Oy              | FLIRT EMU            | 2009-2010       | Stadler Switzerland                | 32                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| France       | FLIRT Mulhouse              | FLIRT EMU 15/25 kVAC | 2008/2009       | Stadler Switzerland                | 12                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| France       | Train Jaune Cerdagne (SNCF) | GTW EMU              | 2004            | Stadler Switzerland                | 2                        | RADOX 3 GKW, 4GKW RADOX GKW-LW/S and EMC              |
| Germany      | Berlin                      | Metro                | 1996            | Adtranz                            |                          | RADOX 4 GKW-AX                                        |
| Germany / DB | Hotel Train                 | EMU                  | 1996            | ABB-AEG-Siemens                    |                          | RADOX 4 GKW-AX, GKW control cable                     |
| Germany / DB | ICE 2                       | HST                  | 1995            | Siemens                            |                          | RADOX 125                                             |
| Germany / DB | ICE 2.1                     | HST                  | 1997            | Siemens                            |                          | RADOX 125, RADOX GKW, RADOX 4 GKW-AX                  |
| Germany / DB | ICE 3                       | HST                  | 1998 + 2001     | Siemens, Bombardier, Duwag Germany | 432                      | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Germany / DB | ICE T                       | HST                  | 1998 + 2002     | Siemens, Duwag                     | 300                      | RADOX 3 GKW, RADOX                                    |



| Country      | Project / Vehicle Type | System Type | Year in Service | Manufacturer           | No. of Vehicles / Trains | H+S Product                                           |
|--------------|------------------------|-------------|-----------------|------------------------|--------------------------|-------------------------------------------------------|
|              |                        |             |                 | Germany                |                          | 4/9 GKW-AX, RADOX GKW-LW/S and EMC                    |
| Germany / DB | ICE TD (VT605)         | HST         | 1998            | Siemens, Duwag Germany | 80                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Germany / DB | ICNeitech              | HST         | 1997            | Siemens                |                          | RADOX GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW             |
| Germany / DB | Lirex                  | EMU         | 1999            | Alstom Germany         | 6                        | RADOX 3 GKW, RADOX 4 GKW-AX, GKW-LW/S                 |
| Germany / DB | Rhein-Braun            | Locomotive  | 2000            | Adtranz                |                          | RADOX 4/9 GKW-AX, GKW-LW/S                            |
| Germany      | Tram 4000 Cologne      | LRV         | 1998            | Bombardier Austria     | 240                      | RADOX 3 GKW, GKW control cable                        |
| Germany      | Tram 5000 Cologne      | LRV         | 2000            | Bombardier Austria     | 220                      | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Germany      | Tram Kassel            | LRV         | 2000            | Bombardier Austria     | 27                       | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable        |



| Country      | Project / Vehicle Type | System Type | Year in Service | Manufacturer                  | No. of Vehicles / Trains | H+S Product                                                                          |
|--------------|------------------------|-------------|-----------------|-------------------------------|--------------------------|--------------------------------------------------------------------------------------|
| Germany      | Tram Rostock           | LRV         | 1999            | Adtranz                       |                          | 4 GKW-AX                                                                             |
| Germany      | Tram Saarbrücken       | LRV         | 2000            | Bombardier Austria            | 16                       | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable                                       |
| Germany / DB | XCC                    | EMU         | 2007 / 2008     | Alstom Germany                | 50                       | Jumper / Databus / Antennas                                                          |
| Germany      | Regional Train         | Talent 2    | 2008 - 2020     | BT Hennigsdorf                | 300                      | GKW-LW/S EMC, Tenuis TW/S EMC, 3 GKW/S, Databuscable                                 |
| Germany      | Regional Train         | REGINA      | 2008 – 2010     | BT Hennigsdorf/<br>BT Görlitz | 40                       | Harnessing, LWL, Jumpercable, Koaxcable, Antennen                                    |
| Germany      | Metro                  | Metro Dehli | 2008 – 2009     | BT Görlitz                    | 11                       | Harnessing, 4 GKW-AX, 3 GKW, GKW-LW/S EMC Databuscable, Tenuis TW/S EMC, Jumpercable |
| Germany      | Tram                   | Frankfurt   | 2007 – 2015     | BT Bautzen                    | 150                      | All cables from H+S                                                                  |
| Germany      | Tram                   | Berlin      | 2010 – 2020     | BT Bautzen                    | 250                      | All cables form H+S                                                                  |
| Germany      | Tram                   | Rotterdam   | 2007 – 2010     | BT Bautzen                    | 20                       | All cables form H+S                                                                  |
| Germany      | Tram                   | Doclands    | 2007 – 2010     | BT Bautzen                    | 10                       | All cables form H+S                                                                  |



| Country | Project / Vehicle Type | System Type                   | Year in Service | Manufacturer    | No. of Vehicles / Trains | H+S Product                     |
|---------|------------------------|-------------------------------|-----------------|-----------------|--------------------------|---------------------------------|
| Germany | Tram                   | Dresden                       | 2005 -2010      | BT Bautzen      | 40                       | All cables form H+S             |
| Germany | Tram                   | Platform Flexity 2            | 2010 – 2015     | BT Bautzen      | 300                      | EN - cables                     |
| Germany | Tram                   | Bursa                         | 2010 – 2011     | BT Bautzen      | 30                       | EN - cables                     |
| Germany | BR 185.2 LOK           | Frequently Converter          | 2007 – 2011     | BT Mannheim     | 250                      | Harnessing                      |
| Germany | SNCF LOK               | Frequently Converter          | 2007 - ?        | BT Mannheim     | 100                      | Harnessing                      |
| Germany | BR 430 Regional Train  | Frequently Converter          | 2010 - ?        | BT Mannheim     | 160                      | Harnessing                      |
| Germany | Tram                   | Stuttgart                     | 2010 - ?        | BT Mannheim     | 50                       | All cables from H+S             |
| Germany | Tram                   | Karlsruhe                     | 2010 - ?        | BT Mannheim     | 30                       | All cables form H+S             |
| Germany | LOK                    | Frequently Converter BR 185.2 | 2005 - ?        | BT Mannheim     | 200                      | LWL Harnessing                  |
| Germany | LOK                    | Frequently Converter SNCF     | 2008 - ?        | BT Mannheim     | 100                      | LWL Harnessing                  |
| Germany | All Vehicles           | Boogies                       | 2005 - ?        | BT Siegen       | Many                     | Harnessing, all cables form H+S |
| Germany | LOK BR 185.2           | Rail controll                 | 2005 - ?        | BT Braunschweig | 200                      | Harnessing                      |





| Country | Project / Vehicle Type | System Type            | Year in Service | Manufacturer             | No. of Vehicles / Trains | H+S Product                                    |
|---------|------------------------|------------------------|-----------------|--------------------------|--------------------------|------------------------------------------------|
|         |                        | soulution              |                 |                          |                          |                                                |
| Germany | LOK SNCF               | Rail control soulution | 2007 - ?        | BT Braunschweig          | 100                      | Harnessing                                     |
| Germany | Regional Train         | FLIRT                  | 2007 - ?        | Stadler                  | 150                      | All cables form H+S                            |
| Germany | Tram                   | Variolux               | 2008 - ?        | Stadler                  | 150                      | All cables form H+S                            |
| Germany | Trackside              | Kreinsen               | 2009            | BT Braunschweig/<br>DBAG | No vehicle               | LWL cable/ Hybridcable                         |
| Germany | Trackside              | Weinheim               | 2009            | BT Braunschweig<br>DBAG  | No vehicle               | LWL cable/ Hybridcable                         |
| Germany | Tackside               | Euskirchen             | 2010            | BT Braunschweig<br>DBAG  | No vehicle               | LWL cabel/ Hybridcable                         |
| Germany | Trackside              | Guntershausen          | 2010            | BT Braunschweig<br>DBAG  | No vehicle               | LWL cable/ Hybridcable                         |
| Greece  | OSE                    | Cog railway            | 2006/2007       | Stadler Switzerland      | 4                        | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable |
| Greece  | OSE, GTW               | Diesel, MTU            | 2002 - 2004     | Stadler Switzerland      | 17                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX           |



| Country   | Project / Vehicle Type              | System Type            | Year in Service | Manufacturer          | No. of Vehicles / Trains | H+S Product                                                       |
|-----------|-------------------------------------|------------------------|-----------------|-----------------------|--------------------------|-------------------------------------------------------------------|
|           |                                     |                        |                 |                       |                          | GKW-LW/S and EMC                                                  |
| Hong Kong | Tuen Mun                            | LRV                    | 1987            | Adtranz               |                          | RADOX 125                                                         |
| Hong Kong | Tuen Mun                            | LRV                    | 1992            | Kawasaki Heavy Ind.   |                          | Radox 125                                                         |
| Hong Kong | Airport                             | People Mover           | 1996            | Kawasaki Heavy Ind.   |                          | RADOX 125                                                         |
| Hong Kong | GEC Whestone,                       | Baggage handling train | 1996            | GEC-Alstom            |                          | RADOX GKW-RSE, RADOX GKW,                                         |
| Hong Kong | GEC-Railway Services                | Refurbishment          | 1996            | GEC-Alstom            |                          | RADOX 4 GKW-AX, RADOX GKW, RADOX GKW-RSE                          |
| Hong Kong | KCRC Through Train Project          | EMU                    | 1999            | Kinki Sharyo Co. Ltd. | 16                       | RADOX 3 GKW, RADOX 4 GKW AX, RADOX GKW                            |
| Hong Kong | MTRC Refurbishment                  | EMU                    | 2000            | A. Goninan + Co.      | 762                      | Radox 4GKA-AX, GKW-LW/S                                           |
| Hong Kong | Hong Kong Airport                   | APM                    | 2009            | Mitsubishi Heavy Ind  | 2                        | GKW-LW, GKW-LW/S,3GKW,4GKW-AX                                     |
| Hungary   | Magyar Allamvasutak ZRt. MAV, FLIRT | EMU                    | 2006 - 2011     | Stadler Switzerland   | 60                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Harnessing |
| India     | Class WAP 5                         | Locomotive             | 1998            | Adtranz               |                          | RADOX 4 GKW-AX                                                    |



| Country | Project / Vehicle Type                              | System Type        | Year in Service | Manufacturer        | No. of Vehicles / Trains | H+S Product                                           |
|---------|-----------------------------------------------------|--------------------|-----------------|---------------------|--------------------------|-------------------------------------------------------|
|         | (BoBo/CoCo)                                         |                    |                 |                     |                          |                                                       |
| India   | MRVC                                                | EMU                | 2006-2010       | Siemens/ICF         | 300                      |                                                       |
| India   | GP 194                                              | EMU                | 2006-2009       | Siemens/ICF         | 185                      |                                                       |
| Iran    | Iran (CBU)                                          | DMU                | 2007            | Rotem Korea         | 24                       | GKW-S Databus                                         |
| Ireland | IrishRail                                           | DMU                | 2006            | Rotem Korea         | 183                      | 3GKW BS FR<br>Databus, Coaxial                        |
| Israel  | Double-Deck                                         | EMU                | 1999            | Bombardier Germany  | 56                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Israel  | Primaô                                              | Diesel Locomotives | 2001            | Alstom ES           | 10                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Italy   | STA AG<br>FLIRT EMU<br>(Merano-Bozen-Innichen)      | EMU                | 2009            | Stadler Switzerland | 10                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Italy   | Sistemi Territoriali<br>ST S.p.A, FLIRT<br>(Padova) | EMU                | 2008            | Stadler Switzerland | 2                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |



| Country             | Project / Vehicle Type                                | System Type     | Year in Service | Manufacturer        | No. of Vehicles / Trains | H+S Product                                           |
|---------------------|-------------------------------------------------------|-----------------|-----------------|---------------------|--------------------------|-------------------------------------------------------|
| Italy               | Sistemi Territoriali ST S.p.A, GTW (Adria-Mestre)     | DMU             | 2006            | Stadler Switzerland | 4                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Italy / Switzerland | TILO Ticino-Lombardia, FLIRT SBB                      | EMU             | 2007            | Stadler Switzerland | 19                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Italy               | STA AG GTW DMU (Merano-Mals)                          | DMU             | 2004 / 2006     | Stadler Switzerland | 12                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Italy               | Ferrovie Udine Cividale GTW Diesel-electric (Friauli) | Diesel-electric | 2006            | Stadler Switzerland | 2                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Italy               | Ferrovie del Gargagno FLIRT (Puglia)                  | EMU             | 2009            | Stadler Switzerland | 3                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Japan               | Toyama and Kumamoto City                              | LRV             | 2009            | Niigata Transis     | 8                        | 4GKW-AX,4GKW-AX EMC                                   |
| Korea               | TGV                                                   | HST             |                 | GEC-Alstom          | 21 trainsets             | RADOX GKW 1-04                                        |
| Korea               | Daegu Line 2                                          | EMU             | 2003            | Rotem Korea         |                          | Radox 3GKW                                            |
| Korea               | SMRT #5,6,7                                           | EMU             | 2004            | Rotem Korea         |                          | Radox 3GKW                                            |



| Country | Project / Vehicle Type | System Type | Year in Service | Manufacturer         | No. of Vehicles / Trains | H+S Product                                 |
|---------|------------------------|-------------|-----------------|----------------------|--------------------------|---------------------------------------------|
| Korea   | SMSC Line 2            | EMU         | 2004            | Rotem Korea          | 59                       | Radox 3GKW                                  |
| Korea   | INCHEON # 1            | EMU         | 2007            | Rotem Korea          | 72                       | 3GKW, 4GKW-AX<br>GkW-LW/S EMC,<br>Databus   |
| Korea   | SEOUL #2               | EMU         | 2007            | Rotem Korea          | 280                      | GKW-LW/S EMC<br>Databus                     |
| Korea   | KRRI                   | Locomotive  | 2007            | Rotem Korea          | 28                       | 3GKW, 4GKW-AX<br>GkW-LW/S EMC,<br>Radox 125 |
| Korea   | KTX 2nd                | HST         | 2008            | Rotem Korea          | 100                      | Databus, Coaxial<br>GKW-LW/S EMC            |
| Korea   | Incheon Airport        | APM         | 2006            | Mitsubishi Heavy Ind | 9                        | 3GKW,3GKW/S, 4GKW-AX J, GKW-LW/S            |
| Korea   | KIMHAE                 | LRV         | 2009-10         | Rotem Korea          | 50                       | 3GKW, GKW-LW/S EMC<br>Databus               |



| Country     | Project / Vehicle Type | System Type | Year in Service | Manufacturer        | No. of Vehicles / Trains | H+S Product                                                                                     |
|-------------|------------------------|-------------|-----------------|---------------------|--------------------------|-------------------------------------------------------------------------------------------------|
| Malaysia    | CRS Desiro             | EMU         | 2001            | Siemens Germany     | 48                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC                                           |
| Malaysia    | Kuala Lumpur           | LRV         | 1998            | Walkers             | 60                       | RADOX 125, RADOX 4 GKW-AX, GKW control cable                                                    |
| Netherlands | Double Deck, IRM       | EMU         | 2001            | Bombardier          | 378                      | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC                                           |
| Netherlands | VEOLIA DMU             | GTW DMU     | 2007-2008       | Stadler Switzerland | 16                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Hybridcable for Video survey, Harnessing |
| Netherlands | VEOLIA EMU             | GTW EMU     | 2008            | Stadler Switzerland | 8                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Hybridcable for Video survey, Harnessing |
| Netherlands | ARRIVA EMU             | GTW EMU     | 2008            | Stadler Switzerland | 7                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Hybridcable for Video survey, Harnessing |



| Country     | Project / Vehicle Type | System Type | Year in Service | Manufacturer        | No. of Vehicles / Trains | H+S Product                                                                         |
|-------------|------------------------|-------------|-----------------|---------------------|--------------------------|-------------------------------------------------------------------------------------|
| Netherlands | ARRIVA DMU             | GTW DMU     | 2006-2007       | Stadler Switzerland | 43                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Hybridcable for Video survey |
| Norway      | Airport Shuttle        | EMU         | 1997            | Adtranz             |                          | RADOX 3 GKW, RADOX 4GKW AX, RADOX GKW                                               |
| Norway      | DI 6, DI 8             | EMU         | 1996            | Siemens             |                          | RADOX 125, RADOX GKW, RADOX 4 GKW-AX                                                |
| Norway      | T2000, IC 70           | DMU         | 2000            | Adtranz             |                          | RADOX 125                                                                           |
| Norway      | NSB, FLIRT             | EMU         | 2010-2012       | Stadler Switzerland | 50                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC,                              |
| Philippines | Line 1                 | LRV         | 1997            | Hyundai Korea       | 56                       | Radox 3GKW, Radox 4 GKW-AX                                                          |
| Philippines | Line 2                 | LRV         | 1999            | KOROS - Korea       | 48                       | Radox 3GKW, Radox 4 GKW-AX                                                          |
| Philippines | PNR                    | DMU         | 2009            | Rotem Korea         | 18                       | 3GKW, TENUIS-TW/S EMC                                                               |
| Poland      | EU 11                  | Locomotives | 1998            | Bombardier Poland   | 42                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX                                                |



| Country  | Project / Vehicle Type       | System Type | Year in Service | Manufacturer                          | No. of Vehicles / Trains | H+S Product                                                       |
|----------|------------------------------|-------------|-----------------|---------------------------------------|--------------------------|-------------------------------------------------------------------|
|          |                              |             |                 |                                       |                          | GKW-LW/S and EMC                                                  |
| Poland   | Tram Krakow                  | LRV         | 2002            | Bombardier Austria                    | 16                       | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable                    |
| Poland   | Tram Lodz Cityrunner         | LRV         | 2002            | Bombardier Austria                    | 15                       | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable                    |
| Poland   | Marshallamt Schlesien, FLIRT | EMU         | 2008            | Stadler Switzerland<br>Stadler Poland | 4                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Harnessing |
| Poland   | Marshallamt Masovien, FLIRT  | EMU         | 2008            | Stadler Switzerland<br>Stadler Poland | 10                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Harnessing |
| Portugal | Pendoluso                    | HST         | 2001            | Siemens                               |                          | RADOX GKW-LW                                                      |
| Romania  | Movia Metro Bucharest        | Metro       | 2001            | Bombardier Sweden                     | 39                       | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable                    |
| Russia   | EP 10                        | Locomotives | 1998            | Bombardier Switzerland                | 20                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC             |





| Country      | Project / Vehicle Type         | System Type     | Year in Service | Manufacturer         | No. of Vehicles / Trains | H+S Product                                                     |
|--------------|--------------------------------|-----------------|-----------------|----------------------|--------------------------|-----------------------------------------------------------------|
| Russia       | Velaro                         | Highspeedtrains | 2007-2009       | Siemens              | 8 Trainsets              |                                                                 |
| Scotland     | Scotrail                       | EMU             | 2009-2010       | Siemens Germany      | 35                       |                                                                 |
| Singapore    | Singapore Changi Airport       | APM             | 2006            | Mitsubishi Heavy Ind | 16                       | 3GKW, GKW-LW/S, 4GW-AX, 4GKW-AX J, 4GKW-AX EMC-L                |
| Slovakia     | GTW Hohe Tatra                 | EMU             | 1999            | Stadler Switzerland  | 28                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC           |
| Slovenia     | Desiro EMG 312                 | EMU             | 1999            | Siemens Austria      | 60                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW / LW/S and LW/S EMC |
| South Africa | Retrofit 10M3 Railcar          | EMU             | 2001            | Bombardier ZA        | 545                      | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC           |
| Spain        | Montserrat Railway GTW 2/6, AM | DMU             | 2001            | Stadler Switzerland  | 10                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW / LW/S and LW/S EMC |
| Spain        | Pendolino                      | HST             | 2001            | GEC-Alstom           |                          | RADOX GKW 1-04                                                  |



| Country | Project / Vehicle Type | System Type       | Year in Service | Manufacturer           | No. of Vehicles / Trains | H+S Product                                                        |
|---------|------------------------|-------------------|-----------------|------------------------|--------------------------|--------------------------------------------------------------------|
| Spain   | Talgo                  | Locomotives       | 2001            | Bombardier Switzerland | 16                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC              |
| Spain   | Valencia               | Diesel Locomotive | 1999            | GEC-Alstom             |                          | RADOX GKW-SFH, RADOX 4 GKW-SFH                                     |
| Spain   | Israel                 | Diesel Locomotive | 1999            | GEC-Alstom             | 15                       | RADOX GKW-SFH, RADOX 4 GKW-SFH                                     |
| Spain   | Metro Valencia         | Metro             | 2000            | Alstom                 | 5                        | RADOX 3 GKW, RADOX 4/9 GKW-AX                                      |
| Spain   | 333                    | Diesel Locomotive | 2001            | Alstom                 | 32                       | RADOX 3 GKW, RADOX 4/9 GKW-AX                                      |
| Spain   | Tranvia Alemania       | Trans             | 2001            | Bombardier             | 13                       | RADOX 3 GKW, RADOX GKW-LW/S EMC                                    |
| Spain   | Talgo HST-350          | Locomotives       | 2001            | Bombardier Talgo       | 16                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC / DATABUS FR |
| Spain   | Blue Arrow             | Locomotives       | 2002            | Bombardier             | 12                       | FIBEROPTIC ASSEMBLIES                                              |
| Spain   | Euroshuttle            | Locomotives       | 2002            | Bombardier             | 4                        | FIBEROPTIC ASSEMBLIES                                              |



| Country | Project / Vehicle Type     | System Type       | Year in Service | Manufacturer     | No. of Vehicles / Trains | H+S Product                                           |
|---------|----------------------------|-------------------|-----------------|------------------|--------------------------|-------------------------------------------------------|
| Spain   | Egipto                     | Diesel Locomotive | 2003            | Vossloh          | 30                       | RADOX 3 GKW, RADOX 4/9 GKW-AX                         |
| Spain   | 333                        | Diesel Locomotive | 2004            | Alstom           | 31                       | RADOX 3 GKW, RADOX 4/9 GKW-AX                         |
| Spain   | JLE Jubilee Line Extension | Metro             | 2004            | Alstom           | 71                       | GKW-RSE / DATABUS 120OHM                              |
| Spain   | SNCF                       | Diesel Locomotive | 2004            | Alstom           | 160                      | RADOX 3 GKW, RADOX 4 GKW-AX                           |
| Spain   | Tren Tram                  | Trans             | 2004            | Alstom           | 9                        | RADOX 3 GKW, RADOX 4 GKW-AX                           |
| Spain   | Metro Roma                 | Metro             | 2004            | Bombardier       | 12                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Spain   | Trenitalia E-464           | Locomotives       | 2004            | Bombardier       | 2                        | FIBEROPTIC ASSEMBLIES                                 |
| Spain   | Metro Barcelona            | Metro             | 2004            | CAF              | 20                       | RADOX 4 GKW AX EMC L / DATABUS 120OHM                 |
| Spain   | Tenerife Tran              | Trans             | 2005            | Alstom           | 24                       | 9GKW-AX J / DATABUS 120OHM                            |
| Spain   | Talgo HST-250              | Locomotives       | 2005            | Bombardier Talgo | 44                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX                  |



| Country | Project / Vehicle Type | System Type       | Year in Service | Manufacturer | No. of Vehicles / Trains | H+S Product                                                                  |
|---------|------------------------|-------------------|-----------------|--------------|--------------------------|------------------------------------------------------------------------------|
|         |                        |                   |                 |              |                          | GKW-LW/S and EMC /<br>DATABUS FR /<br>FIBEROPTIC<br>ASSEMBLIES               |
| Spain   | Metro Valencia         | Metro             | 2005            | Vossloh      | 20                       | RADOX 3 GKW, RADOX<br>4/9 GKW-AX                                             |
| Spain   | R-200                  | Diesel Locomotive | 2005            | Vossloh      | 28                       | RADOX 3 GKW, RADOX<br>4/9 GKW-AX                                             |
| Spain   | Metro Madrid           | Metro             | 2006            | Bombardier   | 12                       | RADOX 3 GKW, RADOX<br>4/9 GKW-AX, RADOX<br>GKW-LW/S and EMC                  |
| Spain   | Asfa                   | Signalling        | 2006            | Dimetronic   | 50                       | RADOX Tenuis-TW                                                              |
| Spain   | 333                    | Diesel Locomotive | 2006            | Vossloh      | 28                       | RADOX 3 GKW, RADOX<br>4/9 GKW-AX                                             |
| Spain   | 334                    | Deisel Locomotice | 2006            | Vossloh      | 12                       | RADOX 3 GKW, RADOX<br>4/9 GKW-AX                                             |
| Spain   | Metro Valencia         | Metro             | 2006            | Vossloh      | 10                       | RADOX 3 GKW, RADOX<br>4/9 GKW-AX                                             |
| Spain   | S-253                  | Train             | 2007            | Bombardier   | 46                       | RADOX 3 GKW, RADOX<br>4/9 GKW-AX, RADOX<br>Tenuis-TW and TW/S<br>EMC / CABLE |



| Country | Project / Vehicle Type | System Type       | Year in Service | Manufacturer | No. of Vehicles / Trains | H+S Product                                                                          |
|---------|------------------------|-------------------|-----------------|--------------|--------------------------|--------------------------------------------------------------------------------------|
|         |                        |                   |                 |              |                          | ASSEMBLIES                                                                           |
| Spain   | Israel                 | Diesel Locomotive | 2007            | Vossloh      | 6                        | RADOX 3 GKW, RADOX 4/9 GKW-AX                                                        |
| Spain   | Metro Valencia         | Metro             | 2007            | Vossloh      | 10                       | RADOX 3 GKW, RADOX 4/9 GKW-AX                                                        |
| Spain   | FGC-213                | Train             | 2008            | Bombardier   | 42                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC / DATABUS FR                   |
| Spain   | Westrace               | Signalling        | 2008            | Dimetronic   | 70                       | RADOX Tenuis-TW                                                                      |
| Spain   | AVE Italia             | Locomotives       | 2008            | Ingeteam     | 2                        | RADOX 3 GKW, and 3 GKW/S, RADOX 9 GKW-AX, RADOX Tenuis-TW, TW/S and EMC / DATABUS FR |
| Spain   | Euskoloco              | Locomotives       | 2008            | Ingeteam     | 12                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX Tenuis-TW and TW/S EMC                          |
| Spain   | Tren Hotel             | Train             | 2008            | Talgo        | 38                       | RADOX Tenuis-TW / DATABUS FR                                                         |
| Spain   | Euro 4000              | Diesel Locomotive | 2008            | Vossloh      | 18                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX                                                 |



| Country     | Project / Vehicle Type | System Type       | Year in Service | Manufacturer                | No. of Vehicles / Trains | H+S Product                                                        |
|-------------|------------------------|-------------------|-----------------|-----------------------------|--------------------------|--------------------------------------------------------------------|
|             |                        |                   |                 |                             |                          | GKW-LW/S EMC / DATABUS 120OHM                                      |
| Spain       | Metro Valencia         | Metro             | 2008            | Vossloh                     | 10                       | RADOX 3 GKW, RADOX 4/9 GKW-AX                                      |
| Spain       | Kiruna Train           | Train             | 2009            | Bombardier                  | 18                       | RADOX 3 GKW, RADOX 4 GKW-AX / FIBEROPTIC ASSEMBLIES                |
| Spain       | Westrace               | Signalling        | 2009            | Dimetronic                  | 120                      | RADOX Tenuis-TW                                                    |
| Spain       | Euro 4000              | Diesel Locomotive | 2009            | Vossloh                     | 10                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S EMC / DATABUS 120OHM |
| Spain       | Velaro                 | Highspeedtrains   | 2005-2006       | Siemens Germany             | 25                       |                                                                    |
| Sweden      | C20 Stockholm          | Metro             | 1997 + 2002     | Bombardier Sweden (Adtranz) | 675                      | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable                     |
| Sweden / SJ | Regina, X52, Stockholm | EMU               | 2002            | Bombardier Sweden           | 18 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC              |
| Sweden / SJ | Regina X52, Transito   | EMU               | 2002            | Bombardier Sweden           | 11 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX                               |



| Country     | Project / Vehicle Type   | System Type | Year in Service | Manufacturer                | No. of Vehicles / Trains | H+S Product                                           |
|-------------|--------------------------|-------------|-----------------|-----------------------------|--------------------------|-------------------------------------------------------|
|             |                          |             |                 |                             |                          | GKW-LW/S and EMC                                      |
| Sweden / SJ | Oresund bi-voltage, X31K | EMU         | 2000            | Adtranz / Bombardier Sweden | 20 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden / SJ | Kalmar-Göteborg, X32     | EMU         | 2003            | Bombardier Sweden           | 14 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden / SJ | Oresund, Y2K             | DMU         | 1995            | Adtranz / Bombardier Sweden | 3 train-sets             | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden      | Kiruna                   | Locomotives | 1998            | Bombardier Germany          | 9                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden      | Metro Arlanda            | EMU         | 1999            | GEC-Alstom                  | 28                       | RADOX 4 GKW-AX                                        |
| Sweden / SL | Tram A32 Stockholm       | LRV (EMU)   | 2001            | Bombardier Austria + Sweden | 12 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden      | Tram Stockholm           | LRV         | 1999            | Bombardier                  |                          | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable        |
| Sweden / SL | Stockholm, X60           | EMU         | 2005            | Alstom Germany              | 55 train-sets            | Jumper cables, RADOX 3 GKW, RADOX 4/9 GKW-            |



| Country | Project / Vehicle Type  | System Type                      | Year in Service | Manufacturer       | No. of Vehicles / Trains             | H+S Product                                                    |
|---------|-------------------------|----------------------------------|-----------------|--------------------|--------------------------------------|----------------------------------------------------------------|
|         |                         |                                  |                 |                    |                                      | AX                                                             |
| Sweden  | Regina, SJ , X55        | EMU                              | 2009            | Bombardier         | 20*4 cars                            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Railcat |
| Sweden  | Regina, SJ , X55        | EMU                              | 2009            | Bombardier         | 20*4 cars                            | FO Q-ODC, jumper, Antennas, RF assembly                        |
| Sweden  | NAT (Il de France)      | EMU/Propulsion & Control units   | 2008            | Bombardier, PPC    | 172 + 200 train sets                 | Fortis, Tenuis-T1, (EN 50306, EN 50264), Antennas              |
| Sweden  | AGC                     | EMU/Propulsion & Control units   | 2004            | Bombardier,        | 698 TS                               | Fortis, Tenuis-T1, (EN 50306, EN 50264)                        |
| Sweden  | Delhi Metro             | Metro/Propulsion & Control units | 2008            | Bombardier         | Order on 85 TS (split SE 25 - IN 60) | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Railcat |
| Sweden  | Green Cargo RC2 upgrade | Locomotive                       | 2008            | Bombardier         | 42 Locos with option on 38 Rc2       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Railcat |
| Sweden  | Car carrier             | Freight Wagon                    | 2009            | Kockums Industrier | 10 wagons                            | EN-Cables 50306                                                |
| Sweden  | NSB B7 upgrade          | EMU                              | 2007-2008       | Euromaint          | 7 train sets                         | Databus, GKW-LW, 4GKW, 3GKW, antennas                          |





| Country | Project / Vehicle Type     | System Type                      | Year in Service        | Manufacturer         | No. of Vehicles / Trains | H+S Product                                           |
|---------|----------------------------|----------------------------------|------------------------|----------------------|--------------------------|-------------------------------------------------------|
|         |                            |                                  |                        |                      |                          | SWA 0859/360/4/0/V RF cables                          |
| Sweden  | Gautrain                   | EMU Propulsion & Control units   | 2007                   | Bombardier           | 24 train sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden  | T46 upgrade, LKAB          | Diesel Locomotives               | 2008                   | STT Svensk tågteknik | 3 Loco                   | (3GKW) 1,5 – 95 mm <sup>2</sup> 4GKW-AX               |
| Sweden  | LUL/east/north London Line | Metro/Propulsion & Control units | 2007                   | Bombardier           | 44 train sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden  | LUL/SSL                    | Metro/Propulsion & Control units | 2009 (test serie 2007) | Bombardier           | 190 train sets           | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden  | LUL/VLU                    | Metro/Propulsion & Control units | 2009                   | Bombardier           | 46 train sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden  | A32                        | LRV/Propulsion & Control units   | 2007                   | Bombardier           | 9 train sets             | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden  | Talent II                  | EMU Propulsion & Control units   | 2008                   | Bombardier           | 321 train sets (order76) | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Sweden  | QRGC                       | EMU Propulsion & Control units   | 2007                   | Bombardier           | >20 train sets           | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX                  |



| Country           | Project / Vehicle Type           | System Type      | Year in Service | Manufacturer                           | No. of Vehicles / Trains | H+S Product                                               |
|-------------------|----------------------------------|------------------|-----------------|----------------------------------------|--------------------------|-----------------------------------------------------------|
|                   |                                  |                  |                 |                                        |                          | GKW-LW/S and EMC                                          |
| Switzerland / SBB | ICN Tilting Intercity, RABDe500  | EMU tilting      | 2000            | Adtranz/Fiat-SIG/Schindler Switzerland | 308                      | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC     |
| Switzerland / SBB | S-Bahn Zürich, Re450             | EMU + Locomotive | 1989            | ABB Switzerland                        | 460                      | RADOX 3 GKW, RADOX 4/9 GKW-A, Coda, GKW-Coda, Fiber Optic |
| Switzerland       | Martigny-Chatelard               | LRV              | 2002            | Bombardier                             |                          | RADOX 3 GKW, RADOX 4/9 GKW-AX, GKW control cable          |
| Switzerland       | Hotel Train                      |                  | 1993            | ABB-AEG-Siemens                        |                          | RADOX 4 GKW-AX, GKW control cable                         |
| Switzerland / SBB | IC 2000 Doble-Deck               | EMU              | 1997 + 2001     | Bombardier Switzerland                 | 323                      | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC     |
| Switzerland / SBB | Electro-diesel MU Geneva, Bem550 | EMU              | 1994            | Bombardier Switzerland                 | 5 train-sets             | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC     |
| Switzerland / SBB | NPZ, RBDDe560                    | EMU              | 1984            | ABB Switzerland                        | 126 train-sets           | GKW-U, RADOX 3 GKW, RADOX 4 GKW-A, GKW-Coda               |
| Switzerland /     | Regioliner GTW2/6, Seetalbahn,   | EMU              | 2002            | Stadler Switzerland                    | 17 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX                      |



| Country           | Project / Vehicle Type          | System Type | Year in Service | Manufacturer        | No. of Vehicles / Trains | H+S Product                                           |
|-------------------|---------------------------------|-------------|-----------------|---------------------|--------------------------|-------------------------------------------------------|
| SBB               | RABe520                         |             |                 |                     |                          | GKW-LW/S and EMC                                      |
| Switzerland / SBB | 100 gauge, HGe101               | Locomotive  | 1989            | ABB Switzerland     | 8                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, GKW-Coda               |
| Switzerland / RM  | Universal Loco, RE456           | Locomotive  | 1993            | ABB Switzerland     | 2                        | RADOX 3 GKW, RADOX 4/9 GKW-AX                         |
| Switzerland / RM  | Regioliner GTW2/6, RABe2/6      | EMU         | 2003            | Stadler Switzerland | 8 train-sets             | RADOX 3 GKW, RADOX 4/9 GKW-AX                         |
| Switzerland / SBB | Neitec                          | HST         | 1994            | Adtranz Switzerland |                          | RADOX 4 GKW-AX, RADOX 9 GKW-AX                        |
| Switzerland / SBB | Nina BLS                        | Commuter    |                 | Bombardier          |                          | RADOX 3 GKW, RADOX 4/9 GKW-AX, GKW control cable      |
| Switzerland / SBB | TM2/2 Track Maintenance Vehicle | Special     | 1999 + 2001     | Stadler Switzerland | 100                      | RADOX 3 GKW, RADOX 4/9 GKW-AX                         |
| Switzerland / SBB | THURBO GTW2/6, RABe526          | EMU         | 1998            | Stadler Switzerland | 10 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Switzerland / SBB | THURBO Seehäsele Service GTW,   | DMU         | 1996            | Stadler Switzerland | 3 train-sets             | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX                  |



| Country                    | Project / Vehicle Type   | System Type | Year in Service | Manufacturer                  | No. of Vehicles / Trains | H+S Product                                           |
|----------------------------|--------------------------|-------------|-----------------|-------------------------------|--------------------------|-------------------------------------------------------|
|                            | Bm596                    |             |                 |                               |                          | GKW-LW/S and EMC                                      |
| Switzerland / SBB          | THURBO NPZ, RBDe566      | EMU         | 1994            | ABB Switzerland               | 4 train-sets             | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Switzerland / SBB          | THURBO GTW, RABe526      | EMU         | 2003            | Stadler Switzerland           | 80 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC |
| Switzerland / WAB          | He2/2                    | Locomotive  | 1995            | Stadler Switzerland           | 2                        | RADOX 3 GKW, RADOX 4 GKW-AX                           |
| Switzerland / WAB          | Panoramic train, BDhe4/8 | EMU         | 2003            | Stadler Switzerland           | 4 train-sets             | RADOX 3 GKW, RADOX 4 GKW-AX                           |
| Switzerland / Jungfraubahn | BDhe4/8                  | EMU         | 1992            | Stadler Switzerland           | 8 train-sets             | RADOX 3 GKW, RADOX 4/9 GKW-AX                         |
| Switzerland / VBZ          | Cobra Tram               | LRV         | 2001            | Adtranz, Railcore Switzerland | 75                       | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable        |
| Switzerland / Forchbahn    | Tram 2000/FB, Be8/8      | EMU         | 1976            | ABB Switzerland               | 6 train-sets             | RADOX 3 GKW, GKW-Coda                                 |
| Switzerland / Forchbahn    | Tram 2000/FB, Be4/4      | EMU         | 1993            | ABB Switzerland               | 8 train-sets             | RADOX 3 GKW, GKW-Coda                                 |
| Switzerland /              | GTW 2/6, Be8/12          | EMU         | 2004            | Stadler Switzerland           | 13 train-sets            | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX                  |



| Country     | Project / Vehicle Type | System Type   | Year in Service | Manufacturer           | No. of Vehicles / Trains | H+S Product                                                                          |
|-------------|------------------------|---------------|-----------------|------------------------|--------------------------|--------------------------------------------------------------------------------------|
| Forchbahn   |                        |               |                 |                        |                          | GKW-LW/S and EMC                                                                     |
| Switzerland | BLS-RE NINA            | EMU           | 2008-2009       | Bombardier Switzerland | 16                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC,                               |
| Switzerland | MPZ, HARTING PIS       | Refurbishment | 2007-2010       | SLM, BBA               | 120                      | Harnessing                                                                           |
| Switzerland | DPZ, HARTING PIS       | Refurbishment | 2007-2010       | SLM, BBA               | 100                      | Harnessing                                                                           |
| Switzerland | SBB Eurocity           | Refurbishment | 2009-2010       |                        | 120                      | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX TW/S and EMC,                                   |
| Switzerland | SBB IC2000             | Refurbishment | 2009            | Siemens                | 80                       | New Multiband Antenna                                                                |
| Switzerland | RBS                    | EMU           | 2009 - 2010     | Stadler Switzerland    | 12                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC<br>Harnessing,<br>Jumpercables |
| Switzerland | RHB                    | EMU           | 2010 - 2012     | Stadler Switzerland    | 16                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC<br>Harnessing,<br>Jumpercables |



| Country         | Project / Vehicle Type                           | System Type       | Year in Service | Manufacturer                                     | No. of Vehicles / Trains                 | H+S Product                                                   |
|-----------------|--------------------------------------------------|-------------------|-----------------|--------------------------------------------------|------------------------------------------|---------------------------------------------------------------|
| Switzerland     | SOB                                              | EMU               | 2007/2008       | Stadler Switzerland                              | 11                                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC         |
| Switzerland     | Rhätische Bahn Glacier Express St.Moritz - Davos |                   | 2006-2009       | Stadler Switzerland                              | 32                                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC         |
| Switzerland     | SBB / DTZ                                        | EMU Doblefloor    | 2004-2009       | Siemens Germany                                  | 61 Trainsets                             |                                                               |
| Switzerland SBB | AM 843                                           | Diesel Locomotive | 2003-2008       | Vossloh Germany                                  | 30                                       |                                                               |
| Taiwan          | Bullet Train                                     | High Speed Train  | 2007            | Kawasaki, Hitachi, Nippon Sharyo                 | 168                                      | 3GKW BS FR, 4GKW-AX BS FR                                     |
| Thailand        | Bangkok subway                                   | EMU               | 2009            | Changchun Railway Co.                            | 8x6                                      | 3GKW, TENUIS/S, TENUIS/S EMC, DATABUS, 4GKW-AX<br>4GKW-AX EMC |
| Thailand        | Bangkok Sky Train (Re-signalling)                | EMU               | 2008-2009       | Bombardier Transportation Signal (Thailand) Ltd. | 35 x 3 existing rolling stocks (Siemens) | RADOX 3GKW, 3GKW/S, GKW-LW/S EMC                              |
| Turkey          | Izmir                                            | LRV               | 1996            | Adtranz                                          |                                          | RADOX 3 GKW, RADOX 4 GKW-AX                                   |



| Country | Project / Vehicle Type  | System Type | Year in Service | Manufacturer         | No. of Vehicles / Trains | H+S Product                                    |
|---------|-------------------------|-------------|-----------------|----------------------|--------------------------|------------------------------------------------|
| Turkey  | Low Floor Tram Istanbul | LRV         | 2002            | Bombardier Austria   | 2                        | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable |
| Turkey  | TCDD                    | DMU         | 2008            | Rotem Korea          | 24                       | 3GKW, 4GKW-AX<br>GkW-LW/S EMC, Databus         |
| Turkey  | Istanbul                | EMU         | 2008            | Rotem Korea          | 8                        | 3GKW, 4GKW-AX<br>GkW-LW/S EMC, Databus         |
| Turkey  | Otogar                  | LRV         | 2008            | Rotem Korea          | 68                       | 4GKW-AX/EMC-L<br>GkW-LW/S EMC                  |
| Turkey  | TCDD                    | EMU         | 2009            | Rotem Korea          | 9                        | 3GKW, 4GKW-AX<br>GkW-LW/S EMC, Databus         |
| UAE     | Dubai Airport (AX132)   | APM         | 2008            | Mitsubishi Heavy Ind | 27                       | 3GKW,GKW-LW,GKW-LW/S,4GKW-AX J,4GKW-AX EMC-L   |
| UAE     | Dubai Metro             | Metro Train | 2010            | Kinki Sharyo         | 395                      | Radox Databus,                                 |



| Country | Project / Vehicle Type    | System Type | Year in Service | Manufacturer         | No. of Vehicles / Trains | H+S Product                                                                         |
|---------|---------------------------|-------------|-----------------|----------------------|--------------------------|-------------------------------------------------------------------------------------|
|         |                           |             |                 |                      |                          | Jumper cable                                                                        |
| USA     | GTW New Jersey Transit    | EMU         | 2001            | Stadler Germany      | 40                       | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC                               |
| USA     | Low Floor Tram Tacoma T10 | LRV         | 2001            | Skoda CZ             | 9                        | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control cable                                      |
| USA     | Tram Portland, Oregon     | LRV         | 2000            | Inoken/Skoda CZ      | 10                       | RADOX 3 GKW, RADOX 4 GKW-AX, GKW control                                            |
| USA     | CONRAC<br>(Atlanta)       | APM         | 2008            | Mitsubishi Heavy Ind | 6                        | GKW-LW<br><br>Coaxial EF_393                                                        |
| USA     | CapMetro Austin<br>Texas  | GTW DMU     | 2008            | Stadler Switzerland  | 6                        | RADOX 3 GKW, RADOX 4/9 GKW-AX, RADOX GKW-LW/S and EMC, Hybridcable for Video survey |