

Eacon

The field terminated microwave assembly

Product description

To suit to the needs of our customers, HUBER+SUHNER has developed this innovative solution. Eacon stands for a simple, flexible and fast way to assemble microwave cable and connectors in the field without compromises to the best performance. The new field terminated microwave cable and connectors are light and waterproofed, built for frequencies up to 18 GHz - ready for use in the defense market as well as generally in the industrial market.

Product features

- Impedance 50 Ω
- Applicable up to 18 GHz
- Velocity of propagation 77%
- Field terminated
- Waterproof IP 67
- Low loss
- Extremely reliable
- Assembling tool kits available
- Easy assembling - only two connector parts
- Taking on site decision regarding length and configurations
- Narrowest cable feedthrough dimensions (assembling after installation)
- More added value for customers

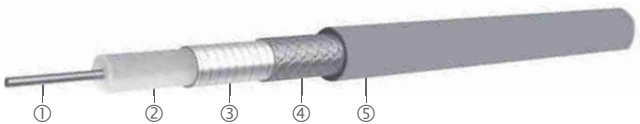


Flexible assemblies

Recommended connectors

Eacon_2C	SMA
Eacon_4C	BNC, N, QMA, SMA, TNC
Eacon_6C	TNC, N
	Other connectors available on request.


Construction



Cable	Item no.	Inner conductor ①	Dielectric ②	Outer conductor ③ ④	Jacket ⑤	Outer Diameter mm
Eacon_2C	84116378	CuAg Wire	LD-PTFE	CuAg tape / SiCuAg braid	FEP, white	3.75
Eacon_4C	84048293	CuAg Wire	LD-PTFE	CuAg tape / braid	FEP, white	5.50
Eacon_6C	84116403	CuAg Wire	LD-PTFE	CuAg tape / braid	FEP, white	7.70

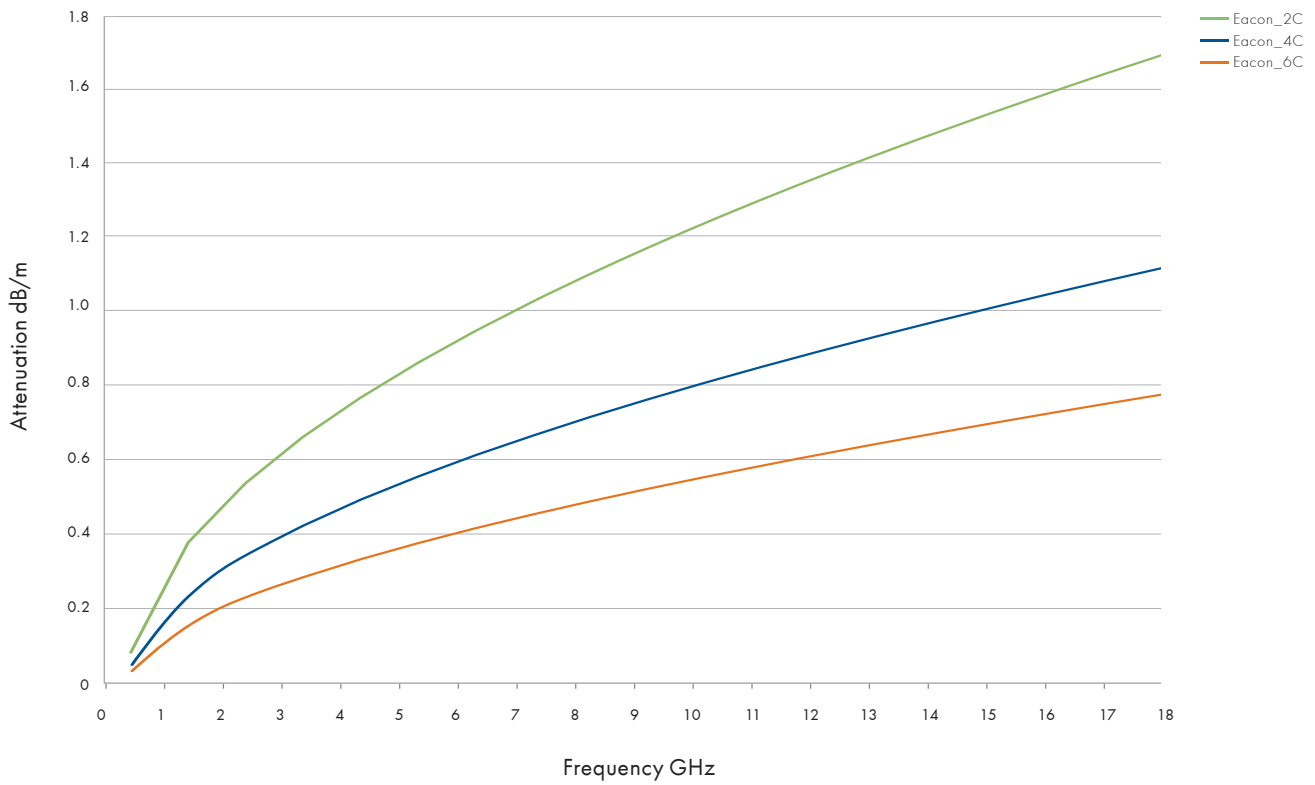
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Assembly types

		Eacon_2C	Eacon_4C	Eacon_6C
Construction				
Max. operating frequency	GHz	18	18	18
Application		static	static	static
Velocity of propagation	%	77	77	77
Weight	g/m	39	73	148
Min. bending radius static	mm	12	16	24
Min. bending radius repeated	mm	20	25	40
Temperature range	°C	-55 to +200	-55 to +200	-55 to +200
Tensile load	N	100	180	180
Crush resistance	kN/m	8	8	8
Inner conductor		wire	wire	wire
Dielectric		LD-PTFE	LD-PTFE	LD-PTFE
Outer conductor		Tape /braid	Tape /braid	Tape /braid
Jacket		FEP	FEP	FEP
Outer diameter	mm	3.75	5.50	7.70
Screening effectiveness (up to 18 GHz)	dB	>90	>90	>90
Phase stability vs. flexure, 360°, diameter 55 mm (2C, 4C), 85 mm (6C)	°el/GHz	< 1.2	< 1.7	<2.0
Phase stability vs. temperature (-40 to +85 °C)	ppm	<1'500	< 1'500	< 1'500
Cable attenuation at 25 °C	dB/m	See graph	See graph	See graph
Power handling	watt	See graph	See graph	See graph
Smoke index		naval engineering Standard 711 and ASTM-B 622-92 (140°F for 24 hours, conditioned @ 73°F and 50% relative humidity)	naval engineering Standard 711 and ASTM-B 622-92 (140°F for 24 hours, conditioned @ 73°F and 50% relative humidity)	naval engineering Standard 711 and ASTM-B 622-92 (140°F for 24 hours, conditioned @ 73°F and 50% relative humidity)
Solar radiation		MIL-STD-810, Method 505, Procedure II	MIL-STD-810, Method 505, Procedure II	MIL-STD-810, Method 505, Procedure II
Flammability		MIL-C-87104, Paragraph 4.6.4.8	MIL-C-87104, Paragraph 4.6.4.8	MIL-C-87104, Paragraph 4.6.4.8
Chemical resistance		British Standard 3G100, Part 2, Section 3, Class A	British Standard 3G100, Part 2, Section 3, Class A	British Standard 3G100, Part 2, Section 3, Class A
Fungus		MIL-STD-810, Method 508.3	MIL-STD-810, Method 508.3	MIL-STD-810, Method 508.3
RoHS (2002/95/EC)		compliant	compliant	compliant

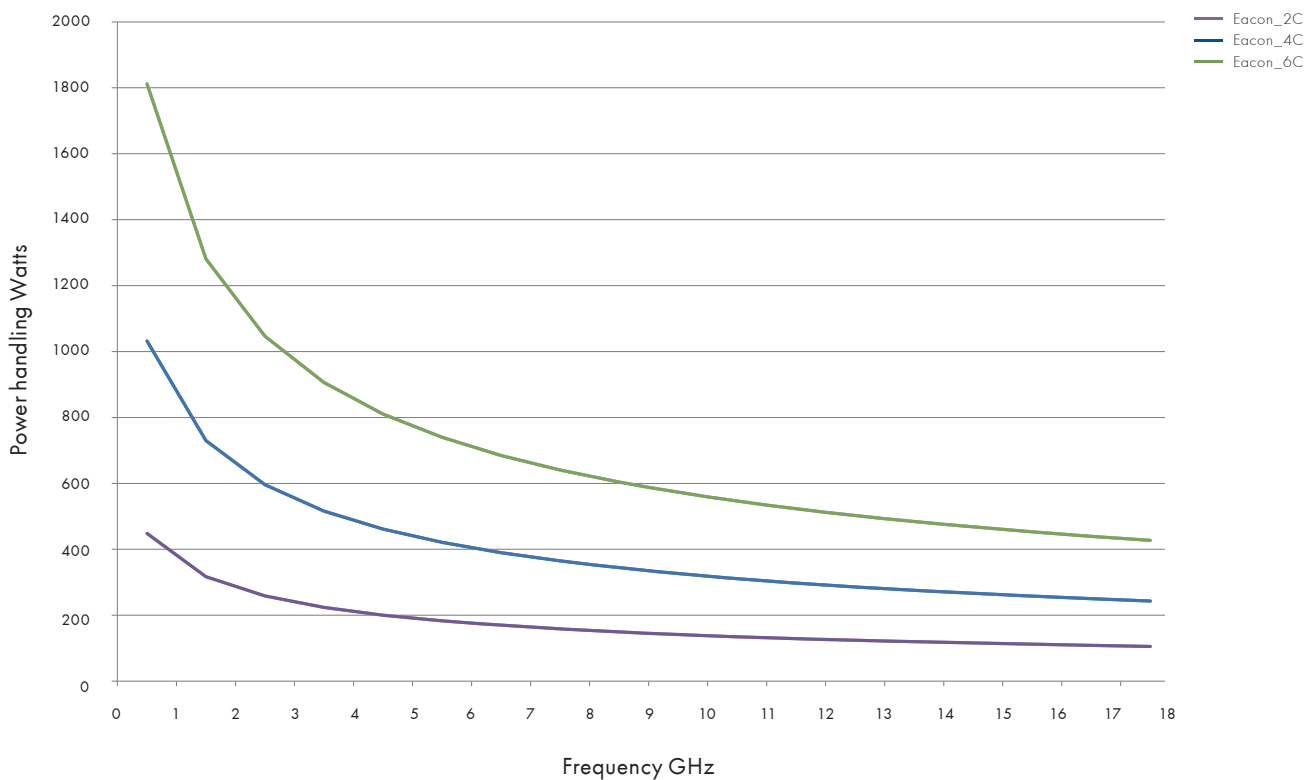
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Attenuation (nominal values at +25 °C ambient temperature)



Flexible assemblies

Power handling (maximum values at 25 °C ambient temperature and sea level)



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Available connectors

Connector	Series, pattern	HUBER+SUHNER type			Eacon_2C	Eacon_4C	Eacon_6C	Typical VSWR			
								4 GHz	6 GHz	11 GHz	18 GHz
BNC	Straight cable plug	11_BNC-50-4-33/12_NE	84139633		•			1.15			
	Right angle cable plug	16_BNC-50-4-14/12_NE	84146122		•			1.30			
N	Straight cable plug	11_N-50-4-19/12_NE	84070286		•				1.12	1.35	1.40
	Straight cable plug	11_N-50-6-19/12_NE	85074230			•			1.12	1.15	
	Right angle cable plug	16_N-50-4-13/12_NE	84070287		•				1.12	1.15	1.25 *
	Right angle cable plug	16_N-50-6-14/12_NE	85074231			•			1.12	1.25	
	Straight panel bulkhead cable jack	24_N-50-4-13/12_NE	85005806		•				1.12		1.17
	Straight panel cable jack, flange mount	25_N-50-4-8/12_NE	84070288		•				1.12		1.17
QMA	Straight cable plug	11_QMA-W50-4-4/19_NE	84121825		•				1.12		
SMA	Straight cable plug	11_SMA-50-2-76/199_NE	85074234	•					1.13		1.30
	Straight cable plug	11_SMA-50-4-101/199_NE	84070289		•				1.12		1.15
	Right angle cable plug	16_SMA-50-2-20/199_NE	85074235	•					1.12	1.35	
	Right angle cable plug	16_SMA-50-4-165/199_NE	84070290		•				1.12	1.45	
TNC	Straight cable plug	11_TNC-50-4-23/12_NE	84070283		•				1.12	1.30	
	Straight cable plug	11_TNC-50-6-8/12_NE	85074232			•			1.09	1.22	
	Right angle cable plug	16_TNC-50-4-101/12_NE	84070284		•				1.12	1.30	
	Right angle cable plug	16_TNC-50-6-12/12_NE	85074233			•			1.17	1.35	
	Straight panel cable jack, flange mount	25_TNC-50-4-18/12_NE	84070285		•				1.12	1.20	

*(up to 15 GHz)

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Assembling tool kits for all connectors, used with Eacon 2C/4C/6C cables (with additional space for other auxiliary tools and spare parts).



Combined Eacon 2C / 4C / 6C assembling tool kit

HUBER + SUHNER type	Item no.	Content	Size
74_Z-0-0-647	85075222	all tools, needed to assemble Eacon 2C / 4C / 6C	395 × 315 × 100 mm/ 15.5 × 12.4 × 3.9 in

Eacon 2C assembling tool kit

HUBER + SUHNER type	Item no.	Content	Size
74_Z-0-0-645	85075220	all tools, needed to assemble Eacon 2C	395 × 315 × 100 mm/ 15.5 × 12.4 × 3.9 in

Pos.	HUBER + SUHNER type	Item no.	Description	Comment
1	74_Z-0-0-12	22642718	metal saw	-
2	74_Z-0-0-13	22644241	replacement of saw blade	please order separately (not incl. in the toolbox)
3	74_Z-0-0-475	84079191	torque wrench 8 mm (4 Nm)	please check the torque from time to time
4	74_Z-0-0-474	84079907	trim tool	-
5	74_Z-0-0-638	85075218	stripping tool Eacon 2C	-
6	74_Z-0-0-563	84079618	blades cartridge for stripping tool 74_Z-0-0-638	please order separately (not incl. in the toolbox)
7	74_Z-0-0-639	85075217	Cone	5 pcs.
8	74_Z-0-0-641	85075213	Fixation tool for cutting	

Eacon 4C assembling tool kit

HUBER + SUHNER type	Item no.	Content	Size
74_Z-0-0-606	84074447	all tools, needed to assemble Eacon 4C	395 × 315 × 100 mm/ 15.5 × 12.4 × 3.9 in

Pos.	HUBER + SUHNER type	Item no.	Description	Comment
1	74_Z-0-0-12	22642718	metal saw	-
2	74_Z-0-0-13	22644241	replacement of saw blade	please order separately (not incl. in the toolbox)
3	74_Z-0-0-475	84079191	torque wrench 8 mm (4 Nm)	please check the torque from time to time
4	74_Z-0-0-474	84078907	trim tool	-
5	74_Z-0-0-473	84079184	stripping tool Eacon 4C	-
6	74_Z-0-0-563	84079618	blades cartridge for stripping tool 74_Z-0-0-473	please order separately (not incl. in the toolbox)
7	74_Z-0-0-642	85075214	Fixation tool for cutting	

Eacon 6C assembling tool kit

HUBER + SUHNER type	Item no.	Content	Size
74_Z-0-0-646	85075221	all tools, needed to assemble Eacon 6C	395 × 315 × 100 mm/ 15.5 × 12.4 × 3.9 in

Pos.	HUBER + SUHNER type	Item no.	Description	Comment
1	74_Z-0-0-12	22642718	metal saw	-
2	74_Z-0-0-13	22644241	replacement of saw blade	please order separately (not incl. in the toolbox)
3	74_Z-0-0480	84079190	torque wrench 12 mm (5 Nm)	please check the torque from time to time
4	74_Z-0-0-474	84079907	trim tool	-
5	74_Z-0-0-640	85075219	stripping tool Eacon 6C	-
6	74_Z-0-0-564	84079619	blades cartridge for stripping tool 74_Z-0-0-640	please order separately (not incl. in the toolbox)
	74_Z-0-0-643	85075215	Fixation tool for cutting	