

Low PIM broadband RF components

Solutions for Small Cell/DAS

Edition 2018/12



For a uninterrupted mobile subscriber experience a cellular network no matter indoors or outdoors must be reliable, and efficient. HUBER+SUHNER as a leading RF and FO component manufacturer maintains a variety of RF components for combining and distributing RF signals.

- 4.3-10, N, DIN 716 interfaces
- PIM < 161 dBc
- Cost savings
- Available from stock



Diplexers/Quadraplexer

HUBER+SUHNER type	Item no.	Interface (female)	Frequency (MHz)		PIM < (dBc)	Comment
			Low band	High band		
2501.17.0092	84103626	N	80 to 960	1695 to 2700	-155	TETRA + cellular + WiFi diplexer
2501.17.0094	85029272	N	80 to 2170	2400 to 2500	-153	WiFi 2.4 GHz injector
2501.17.0091	84103625	N	80 to 520	698 to 2700	-161	TETRA injector
2501.17.0095	85029273	N	80 to 2690	3300 to 5850	-150	WiFi 5 GHz injector
2501.17.0097	85029235	N	80 to 2170	2400 to 2500 4900 to 5850	-161	WiFi 2.4 + 5 GHz injector
7501.17.0011	84045218	N	80 to 2170	2400 to 2500	-153	WiFi 2.4 injector

HUBER+SUHNER type	Item no.	Interface (female)	Frequency (MHz)				Comment
			Band 1	Band 2	Band 3	Band 4	
2501.41.0100	85070953	7/16	380 to 960	1710 to 1880	1920 to 2170	2500 to 2690	TETRA + GSM/UMTS, LTE

Hybrid and matrix couplers

HUBER+SUHNER type	Item no.	Interface (female)	Frequency (MHz)	PIM < (dBc)	Coupling (dB)	Comment
7404.17.0003	84115336	N	694 to 2700	-161	3	2 × 2
7404.41.0003	85029243	7/16	694 to 2700	-161	3	2 × 2
7404.31.0001	85078458	4.3-10	694 to 2700	-161	3	2 × 2
7406.17.0002	85029248	N	694 to 2700	-161	4.8	3 × 3
7406.41.0002	85029249	7/16	694 to 2700	-161	4.8	3 × 3

Directional couplers

HUBER+SUHNER type	Item no.	Interface (female)	Frequency (MHz)	PIM < (dBc)	Coupling (dB)
7215.31.0001	85075255	4.3-10	694 to 2700	-161	15
7206.31.0002	85075253	4.3-10	694 to 2700	-161	6
7210.31.0003	85075254	4.3-10	694 to 2700	-161	10
7220.31.0004	85075256	4.3-10	694 to 2700	-161	20

Directivity typ. ≥ 20 dB



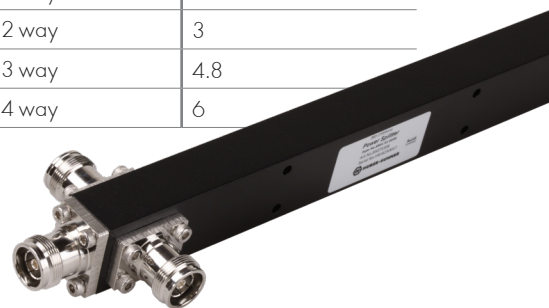
Tappers



HUBER+SUHNER type	Item no.	Interface (female)	Frequency (MHz)	PIM < (dBc)	Inequality between outputs	Ratio between outputs (dB)
5501.31.0002	85075310	4.3-10	350 to 2700	-161	2:1 (3 dB)	-1.8/-4.8
5501.31.0003	85075311	4.3-10	350 to 2700	-161	3:1 (4.8 dB)	-1.3/-6.1
5501.31.0004	85075312	4.3-10	350 to 2700	-161	4:1 (6.0 dB)	-1/-7
5501.31.0010	85075315	4.3-10	350 to 2700	-161	10:1 (10 dB)	-0.4/-10.4
5501.31.0015	85075316	4.3-10	350 to 2700	-161	30:1 (15 dB)	-0.1/-15.1
5501.31.0100	85075317	4.3-10	350 to 2700	-161	100:1 (20 dB)	-0.1/-20.1

Power splitters

HUBER+SUHNER type	Item no.	Interface (female)	Frequency (MHz)	PIM < (dBc)	Remarks	Split loss (dB)
5501.17.0030	85029258	N	380 to 2700	-155	2 way	3
5501.17.0031	85029259	N	380 to 2700	-155	3 way	4.8
5501.17.0032	85029261	N	380 to 2700	-155	4 way	6
5501.41.0030	85029262	7/16	380 to 2700	-155	2 way	3
5501.41.0031	85029263	7/16	380 to 2700	-155	3 way	4.8
5501.41.0032	85029264	7/16	380 to 2700	-155	4 way	6
5502.17.0050	85029265	N	694 to 3800	-161	2 way	3
5502.41.0050	85029268	7/16	694 to 3800	-161	2 way	3
5502.41.0051	85029269	7/16	694 to 3800	-161	3 way	4.8
5501.31.0020	85075304	4.3-10	380 to 2700	-161	2 way	3
5501.31.0030	85075306	4.3-10	380 to 2700	-161	3 way	4.8
5501.31.0040	85075307	4.3-10	380 to 2700	-161	4 way	6



Wilkinson dividers

HUBER+SUHNER type	Item no.	Interface (female)	Frequency (MHz)	PIM < (dBc)	Remarks	Split loss (dB)
5501.17.0027	84104565	N	380 to 2700	-	2 way	3
5501.17.0029	84104567	N	380 to 2700	-	4 way	6
5502.17.0030	84104570	N	694 to 2700	-	2 way	3
5502.17.0032	84104573	N	694 to 2700	-	4 way	6

High power Low PIM Loads for stationary use

Low PIM loads, 50 Ω

HUBER+SUHNER type	Item no.	Interface	Frequency (GHz)	Power (W)	PIM (dBc) ¹⁾
6530.17.0001	85032246	N female	0.69 to 2.7	30	≤ -160 (typ. -165)
6530.41.0001	85032253	7/16 female	0.69 to 2.7	30	≤ -160 (typ. -165)
6530.31.0001	85099304	4.3-10 female	0.35 to 4.0	30	≤ -160 (typ. -165)
6560.31.0001	85105095	4.3-10 female	0.35 to 4.0	60	≤ -160 (typ. -165)
65100.31.0001	85105101	4.3-10 female	0.35 to 4.0	100	≤ -160 (typ. -165)
65150.31.0001	85105102	4.3-10 female	0.35 to 4.0	150	≤ -160 (typ. -165)

¹⁾ Two-tone test at 2 x 43 dBm / 2 x 20 W carrier

Adaptors

Intermodulation adaptors, 50 Ω

Interface 1	Interface 2	PIM (dBc) ¹⁾	HUBER+SUHNER type	Item no.
7/16 male	NEX10 female	≤ -166 **	33_716-NEX10-50-1/133_WE	85092476
NEX10 male	7/16 female	≤ -166 **	33_NEX10-716-50-X1/133_WE	85092478
4.3-10 male	7/16 male	≤ -155 *	32_4310-716-50-X2/133_WE	85031321
4.3-10 male	7/16 female	≤ -155 *	33_4310-716-50-X2/133_WE	85031408
7/16 male	4.3-10 female	≤ -155 *	33_716-4310-50-2/133_WE	85031552
7/16 female	7/16 female	≤ -155 *	31_716-50-0-5/133_WE	85031221
7/16 male	7/16 male	≤ -155 *	32_716-50-0-5/133_WE	85031354
7/16 male	7/16 female	≤ -155 *	33_716-50-0-5/133_WE	85031578
N female	7/16 female	≤ -155 *	31_N-716-50-4/133_WE	85031263
N male	7/16 male	≤ -155 *	32_N-716-50-5/133_WE	85026230
7/16 male	N female	≤ -155 *	33_716-N-50-9/133_WE	85026231
N male	7/16 female	≤ -155 *	33_N-716-50-5/133_WE	85031611

¹⁾ Two-tone test at 2 x 43 dBm / 2 x 20 W carrier

* typ. -160 dBc

** typ. -171 dBc

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