MAXNET® II

Platinum Series

RF & Optical Signal Management

Patented
U.S.# 7,142,414

3RU Active Chassis
(front view)

D3.1 / CCAP™ Compliant

1.2 GHz

Passive Products

Splitting/Combining Modules:

- 16-way, 8-way, 6-way, 4-way, dual 4-way, & triple 2-way universal splitting/combining modules
- Ultra-dense form factor - incredible space savings (24 8-ways in 3RU chassis)
- Front access -20 dB dual test points (split/combine) on selected modules
- Front access to plug-in locations for pads & EQs
- High performance MCX connector receptacles
- 5-1002 MHz operation
- Optimized RF performance
- 16-way takes up 2 slots and all other module types take up 1 slot in MAXNET® II chassis (total of 24 slots)

Splitter/Combiner Specifications

SPECIFICATIONS		MP16[1]	MP8[1]	MP6C	MPSC6	MP4C / MP4-2xx[2]	MP2-3[2]	MP2C2S-2[2]
MEASUREMENT	FREQUENCY	QA (dB)	QA (dB)	QA (dB)	QA (dB)	QA (dB)	QA (dB)	QA (dB)
INSERTION LOSS & FLATNESS	5-10 MHz	17.2 +/- 0.5	13 +/- 0.5	9 +/- 0.5	8.5 +/- 0.5	7.1 +/- 0.5	3.3 +/- 0.5	7.1 +/- 0.5
	10-50 MHz	17.2 +/- 0.5	13 +/- 0.5	9 +/- 0.5	8.5 +/- 0.5	7.1 +/- 0.5	3.4 +/- 0.5	7.2 +/- 0.5
	50-200 MHz	17.2 +/- 0.5	13 +/- 0.5	9 +/- 0.5	8.5 +/- 0.5	7.4 +/- 0.5	3.6 +/- 0.5	7.3 +/- 0.5
	200-550 MHz	17.2 +/- 0.7	13 +/- 0.6	9.5 +/- 0.6	9 +/- 0.6	7.7 +/- 0.5	3.8 +/- 0.5	7.6 +/- 0.5
	550-750 MHz	17.2 +/- 1	13 +/- 0.8	10 +/- 0.8	9.5 +/- 0.8	8.2 +/- 0.5	4 +/- 0.5	8.2 +/- 0.5
	750-860 MHz	17.2 +/- 1.2	13 +/- 0.9	10.5 +/- 0.9	9.5 +/- 0.9	8.4 +/- 0.6	4.2 +/- 0.6	8.8 +/- 0.6
	860-1002 MHz	17.2 +/- 1.5	13.3 +/- 1	11 +/- 1.2	9.5 +/- 1	8.8 +/- 0.7	4.4 +/- 0.7	9.4 +/- 0.7
TEST PORT LOSS & FLATNESS[3]	5-10 MHz	20 +/- 0.7	20 +/- 0.7	20 +/- 0.7	n/a	20 +/- 0.7	n/a	20 +/- 0.7
	10-50 MHz	20 +/- 0.5	20 +/- 0.5	20 +/- 0.5	n/a	20 +/- 0.5	n/a	20 +/- 0.5
	50-200 MHz	20 +/- 0.5	20 +/- 0.5	20 +/- 0.5	n/a	20 +/- 0.5	n/a	20 +/- 0.5
	200-550 MHz	20 +/- 0.5	20 +/- 0.5	20 +/- 0.5	n/a	20 +/- 0.5	n/a	20 +/- 0.5
	550-750 MHz	20 +/- 0.6	20 +/- 0.6	20 +/- 0.6	n/a	20 +/- 0.6	n/a	20 +/- 0.6
	750-860 MHz	20 +/- 0.8	20 +/- 0.8	20 +/- 0.8	n/a	20 +/- 0.8	n/a	20 +/- 0.8
	860-1002 MHz	20 +/- 1	20 +/- 1	20 +/- 1	n/a	20 +/- 1	n/a	20 +/- 1
ISOLATION (Min) PORT-TO-PORT	5-1002 MHz	30	30	30	30	30	30	28
RETURN LOSS (Min) ANY PORT	5-10 MHz	18	18	18	18	18	18	18
	10-1002 MHz	20	20	20	20	20	20	20
RFI (Min)	5-1002 MHz	100	100	100	100	100	100	100
OPERATING TEMPERATURE		0°C to +50°C (+32°F to +122°F)						
HUMIDITY		5-95% (without condensation)						
DIMENSIONS		4.9"H x 1.4"W x 9.4"D (12.45H x 3.56W x 23.88D cm)	4.9"H x 0.69"W x 9.4"D (12.45H x 1.75W x 23.88D cm)					
WEIGHT		2.42 lbs (1.1 kg)	1.85 lbs (0.84 kg)					

NOTES:
(1) Unit uses internal EQ for flattening loss.
(2) Device to device isolation > 75 dB.
(3) Measured relative to common port (and with inserted Pad/EQ = 0 dB in common port).

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Splitting/Combining Modules:

Splitter/Combiner Specifications (cont'd)

SPECIFICATIONS		MP6-12DC	MP6-12DCH
MEASUREMENT	FREQUENCY	QA (dB)	QA (dB)
INSERTION LOSS (IN-OUT)	5-10 MHz	3.1 +/- 0.3	4.2 +/- 0.3
	10-50 MHz	3 +/- 0.3	4.2 +/- 0.3
	50-200 MHz	3 +/- 0.3	4.2 +/- 0.3
	200-400 MHz	3.4 +/- 0.3	4.4 +/- 0.3
	400-550 MHz	3.7 +/- 0.4	4.4 +/- 0.4
	550-750 MHz	4.2 +/- 0.4	4.5 +/- 0.4
	750-860 MHz	4.7 +/- 0.4	4.7 +/- 0.4
	860-1002 MHz	5.2 +/- 0.5	5.2 +/- 0.5
	1002-1218 MHz		5.2 +/- 0.7
INSERTION LOSS (PORT-OUT)	5-10 MHz	15.4 +/- 1	16 +/- 1
	10-50 MHz	15.4 +/- 1	16 +/- 1
	50-200 MHz	15.5 +/- 1	16 +/- 1
	200-550 MHz	15.6 +/- 1	16 +/- 1
	550-750 MHz	16 +/- 1	16 +/- 1
	750-860 MHz	16.3 +/- 1	16.5 +/- 1
	860-1002 MHz	16.6 +/- 1	16.6 +/- 1
	1002-1218 MHz		16.8 +/- 1
ISOLATION (Min) (PORT to PORT)	5-10 MHz	34	34
	10-50 MHz	34	34
	50-200 MHz	34	34
	200-550 MHz	34	34
	550-750 MHz	34	34
	750-860 MHz	34	34
	860-1002 MHz	34	34
	1002-1218 MHz		34
ISOLATION (Min) (IN-PORT)	5-10 MHz	28	28
	10-50 MHz	28	28
	50-200 MHz	28	28
	200-550 MHz	28	28
	550-750 MHz	28	28
	750-860 MHz	28	28
	860-1002 MHz	28	28
	1002-1218 MHz		28
RETURN LOSS (Min) (PORTS IN & OUT)	5-10 MHz	16	16
	10-50 MHz	18	18
	50-200 MHz	18	18
	200-550 MHz	18	18
	550-750 MHz	18	18
	750-860 MHz	18	18
	860-1002 MHz	18	18
	1002-1218 MHz		18
RFI (Min)	5-1218 MHz	100	
OPERATING TEMPERATURE		0°C to +50°C (+32°F to +122°F)	
HUMIDITY		5-95% (without condensation)	
DIMENSIONS		4.9"H x 0.69"W x 9.4"D (12.45H x 1.75W x 23.88D cm)	
WEIGHT		1.85 lbs (0.84 kg)	

Splitting/Combining Modules:

Splitter/Combiner Specifications (cont'd)

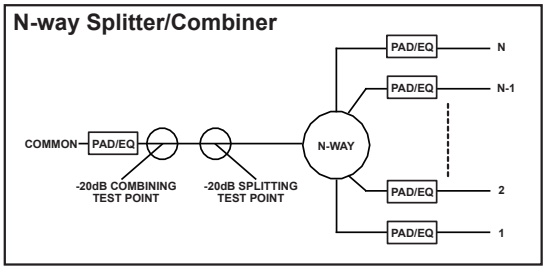
SPECIFICATIONS		MP8H (1)			MP6CH			MPSC6H			MP4CH / MP4-2xxH (1)			MP2C2S-2H (1)			MP2-3H (1)		
MEASUREMENT	FREQUENCY	MIN (dB)	NOM (dB)	MAX (dB)	MIN (dB)	NOM (dB)	MAX (dB)	MIN (dB)	NOM (dB)	MAX (dB)	MIN (dB)	NOM (dB)	MAX (dB)	MIN (dB)	NOM (dB)	MAX (dB)	MIN (dB)	NOM (dB)	MAX (dB)
INSERTION LOSS	5 MHz		10.5	11.5		8	9.5		8	9		7	7.9		8	9		3.3	3.8
	50 MHz		10.6	11.6		8.1	9.6		8.1	9.1		7.1	8		7.7	8.5		3.4	3.9
	550 MHz		12.1	12.8		9.8	10.8		8.8	9.8		8.1	8.6		8.7	9.3		4	4.5
	870 MHz		13	13.6		10.9	11.6		9.2	10.2		8.8	9.3		9.5	10.0		4.4	4.9
	1002 MHz		13.4	14		11.3	12		9.4	10.4		9.1	9.6		9.7	10.2		4.5	5
	1218 MHz		14	14.5		12	12.5		9.7	10.7		9.5	10.3		10.2	10.7		4.8	5.3
FLATNESS	50-1218 MHz		< 0.6	< 0.8		< 0.4	< 0.7		< 0.4	< 0.7		< 0.4	< 0.6		< 0.4	< 0.6		< 0.4	< 0.6
TEST PORT LOSS & FLATNESS(2)	50-1218 MHz	19	20	21	19	20	21	n/a	n/a	n/a	19	20	21	19	20	21	n/a	n/a	n/a
ISOLATION (Min) PORT-TO-PORT	50-1218 MHz	30	32		30	32		30	32		30	32		30	32		30	32	
RETURN LOSS (Min) ANY PORT	5-50 MHz	16	18		16	18		16	18		16	18		16	18		16	18	
	50-1002 MHz	20	22		20	22		20	22		20	22		20	22		20	22	
	1002-1218 MHz	18	20		18	20		18	20		18	20		18	20		18	20	
RFI (Min)	5-1218 MHz	100			100			100			100			100			100		
OPERATING TEMPERATURE		0°C to +50°C (+32°F to +122°F)																	
HUMIDITY		5-95% (without condensation)																	
DIMENSIONS		4.9"H x 0.69"W x 9.4"D (12.45H x 1.75W x 23.88D cm)																	
WEIGHT		1.85 lbs (0.84 kg)																	

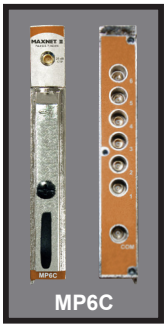
NOTES:
(1) Device to device isolation > 75 dB.
(2) Test point is relative to the common.

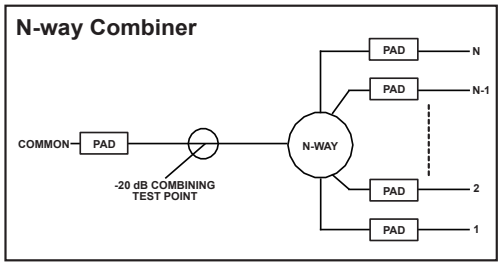
Ordering Information

Part Number	Description
MP16	16-way Splitter/Combiner
MP8	8-way Splitter/Combiner, 1 GHz
MP8H	8-way Splitter/Combiner, 1.218 GHz
MP6-12DC	6x 12 dB Cascaded Directional Coupler Combiner, 1 GHz
MP6-12DCH	6x 12 dB Cascaded Directional Coupler Combiner, 1.218 GHz
MPSC6	Low Loss 6-way Splitter/Combiner, 1 GHz
MPSC6H	Low Loss 6-way Splitter/Combiner, 1.218 GHz
MP6C	6-way Combiner, 1 GHz
MP6CH	6-way Combiner, 1.218 GHz
MP4C	4-way Combiner, 1 GHz
MP4CH	4-way Combiner, 1.218 GHz
MP4-2S	Dual 4-way Splitter, 1 GHz
MP4-2SH	Dual 4-way Splitter, 1.218 GHz
MP4-2C	Dual 4-way Combiner, 1 GHz
MP4-2CH	Dual 4-way Combiner, 1.218 GHz
MP4-2SC	Dual 4-way Splitter/Combiner, 1 GHz
MP4-2SCH	Dual 4-way Splitter/Combiner, 1.218 GHz
MP2-3	Triple 2-way Splitter/Combiner, 1 GHz
MP2-3H	Triple 2-way Splitter/Combiner, 1.218 GHz
MP2C2S-2	Dual 2x2 Narrowcast Combiner/Splitter, 1 GHz
MP2C2S-2H	Dual 2x2 Narrowcast Combiner/Splitter, 1.218 GHz

Functional Schematics







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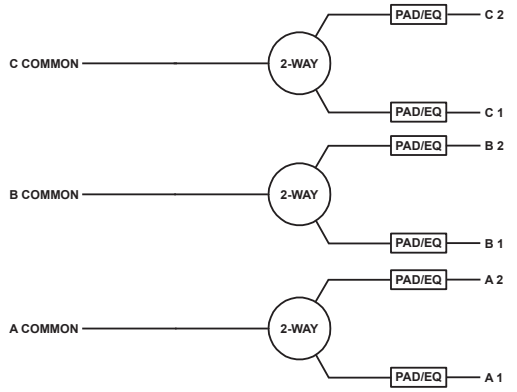
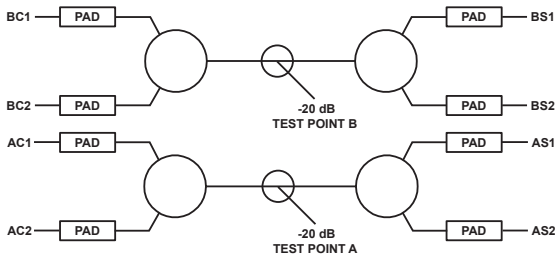
Splitting/Combining Modules:

Functional Schematics (cont'd)

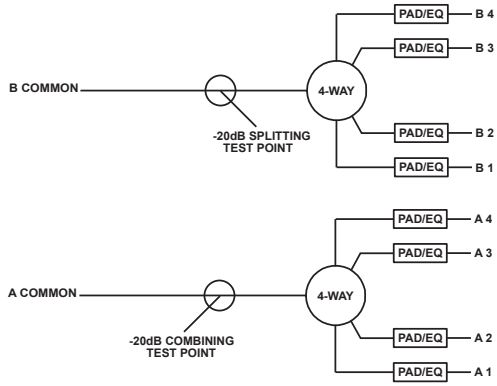
Triple 2-way Splitter/Combiner



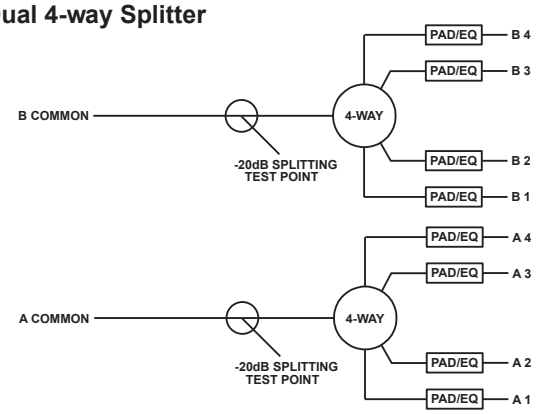
Dual 2x2 Narrowcast Combiner/Splitter



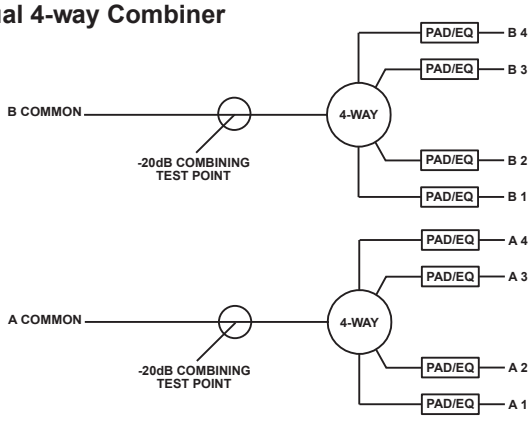
Dual 4-way Splitter/Combiner



Dual 4-way Splitter



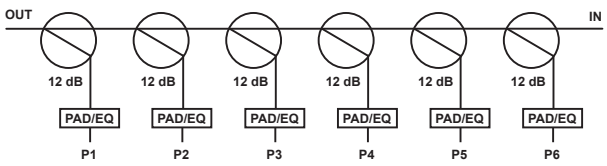
Dual 4-way Combiner



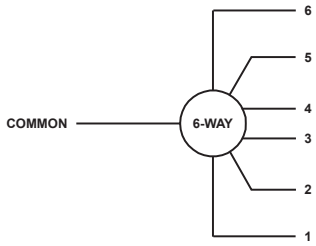
Splitting/Combining Modules:

Functional Schematics (cont'd)

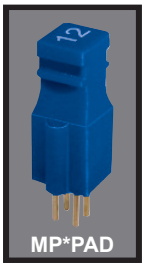
Cascaded Directional Coupler Combiner



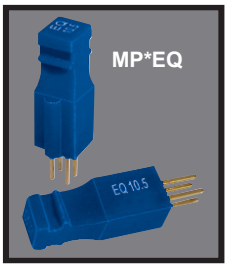
Low Loss 6-way Splitter/Combiner



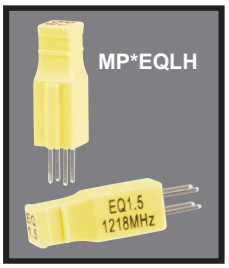
Plug-in Pads/EQs:



Attenuator Pads



1 GHz Linear EQs



1.218 GHz Linear EQs

* = Pad/EQ value

Other values may be available. For all Pad/EQ specifications & ordering information, see MAXNET II Accessories spec sheet (#ANW0618)

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