

MAXNET® II

Platinum Series

RF & Optical Signal Management

Patented
U.S.# 7,142,414



3RU Active Chassis
(front view)

Passive Products

Splitting / Combining Modules:

- ▶ 16-way, 8-way, 4-way, dual 4-way, 2-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)
- ▶ Front access to plug-in locations for pads & EQs
- ▶ High performance MCX connector receptacles
- ▶ 5-1000 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

MEASUREMENT	FREQUENCY	MP16 (3)	MP8 (3)	MP4 / MP4-2xx (1)	MP2 / MP2-3 (1)
		QA (dB)	QA (dB)	QA (dB)	QA (dB)
INSERTION LOSS and FLATNESS	5-10 MHz	17.2 +/- 0.5	13.0 +/- 0.5	7.1/7.1 +/- 0.5	3.9/3.3 +/- 0.5
	10-50 MHz	17.2 +/- 0.5	13.0 +/- 0.5	7.1/7.1 +/- 0.5	3.9/3.4 +/- 0.5
	50-200 MHz	17.2 +/- 0.5	13.0 +/- 0.5	7.5/7.4 +/- 0.5	4.2/3.6 +/- 0.5
	200-550 MHz	17.2 +/- 0.7	13.0 +/- 0.6	7.9/7.8 +/- 0.5	4.5/3.8 +/- 0.5
	550-750 MHz	17.2 +/- 1.0	13.0 +/- 0.8	8.2/8.2 +/- 0.5	4.7/4.0 +/- 0.5
	750-860 MHz	17.2 +/- 1.2	13.0 +/- 0.9	8.6/8.4 +/- 0.6	4.9/4.2 +/- 0.6
	860-1000 MHz	17.2 +/- 1.5	13.3 +/- 1.0	9.0/8.8 +/- 0.7	5.3/4.4 +/- 0.7
TEST PORT LOSS and FLATNESS (2)(4)	5-10 MHz	20.0 +/- 0.7	20.0 +/- 0.7	20.0 +/- 0.7	20.0 +/- 0.7
	10-50 MHz	20.0 +/- 0.5	20.0 +/- 0.5	20.0 +/- 0.5	20.0 +/- 0.5
	50-200 MHz	20.0 +/- 0.5	20.0 +/- 0.5	20.0 +/- 0.5	20.0 +/- 0.5
	200-550 MHz	20.0 +/- 0.5	20.0 +/- 0.5	20.0 +/- 0.5	20.0 +/- 0.5
	550-750 MHz	20.0 +/- 0.6	20.0 +/- 0.6	20.0 +/- 0.6	20.0 +/- 0.6
	750-860 MHz	20.0 +/- 0.8	20.0 +/- 0.8	20.0 +/- 0.8	20.0 +/- 0.8
	860-1000 MHz	20.0 +/- 1.0	20.0 +/- 1.0	20.0 +/- 1.0	20.0 +/- 1.0
ISOLATION (Min) PORT-PORT	5-10 MHz	30	30	30	30
	10-50 MHz	30	30	30	30
	50-200 MHz	30	30	30	30
	200-550 MHz	30	30	30	30
	550-750 MHz	30	30	30	30
	750-860 MHz	30	30	30	30
	860-1000 MHz	30	30	30	30
COMMON PORT RETURN LOSS (Min)	5-10 MHz	20	20	20	20
	10-50 MHz	20	20	20	20
	50-200 MHz	20	20	20	20
	200-550 MHz	20	20	20	20
	550-750 MHz	20	20	20	20
	750-860 MHz	20	20	20	20
	860-1000 MHz	20	20	20	20
PORT RETURN LOSS (Min)	5-10 MHz	20	20	20	20
	10-50 MHz	20	20	20	20
	50-200 MHz	20	20	20	20
	200-550 MHz	20	20	20	20
	550-750 MHz	20	20	20	20
	750-860 MHz	20	20	20	20
	860-1000 MHz	20	20	20	20
RFI (Min)	5-1000 MHz	100	100	100	100

MEASUREMENT	FREQUENCY	MP6-12DC
		QA (dB)
INSERTION LOSS (IN-OUT)	5-10 MHz	3.1 +/- 0.3
	10-50 MHz	3.0 +/- 0.3
	50-200 MHz	3.0 +/- 0.3
	200-400 MHz	3.4 +/- 0.3
	400-550 MHz	3.7 +/- 0.4
	550-750 MHz	4.2 +/- 0.4
	750-860 MHz	4.7 +/- 0.4
	860-1000 MHz	5.2 +/- 0.5
INSERTION LOSS (PORT-OUT)	5-10 MHz	15.4 +/- 1.0
	10-50 MHz	15.4 +/- 1.0
	50-200 MHz	15.5 +/- 1.0
	200-550 MHz	15.6 +/- 1.0
	550-750 MHz	16.0 +/- 1.0
	750-860 MHz	16.3 +/- 1.0
	860-1000 MHz	16.6 +/- 1.0
ISOLATION (Min) (PORT-PORT)	5-10 MHz	34
	10-50 MHz	34
	50-200 MHz	34
	200-550 MHz	34
	550-750 MHz	34
	750-860 MHz	34
	860-1000 MHz	34
ISOLATION (Min) (IN-PORT)	5-10 MHz	28
	10-50 MHz	28
	50-200 MHz	28
	200-550 MHz	28
	550-750 MHz	28
	750-860 MHz	28
	860-1000 MHz	28
RETURN LOSS (Min) (PORTS IN & OUT)	5-10 MHz	16
	10-50 MHz	18
	50-200 MHz	18
	200-550 MHz	18
	550-750 MHz	18
	750-860 MHz	18
	860-1000 MHz	18
RFI (Min)	5-1000 MHz	100

NOTES:

- 1) Device to device isolation > 75 dB
- 2) Measured relative to common port (and with inserted PAD/EQ = 0 dB in common port)
- 3) Unit uses internal equalizer for flattening loss
- 4) Doesn't apply to MP2-3

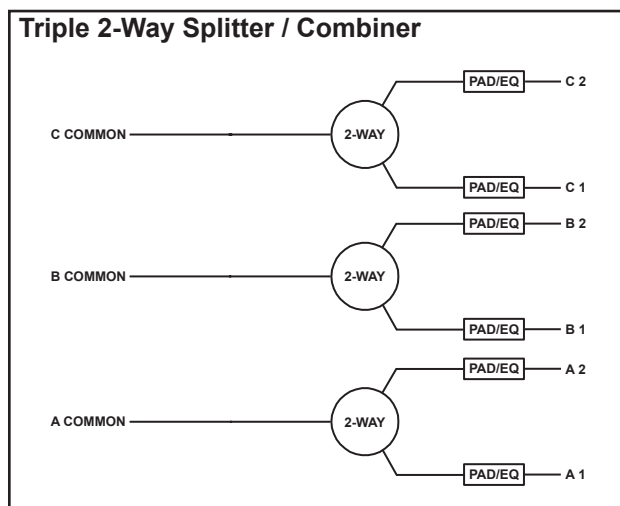
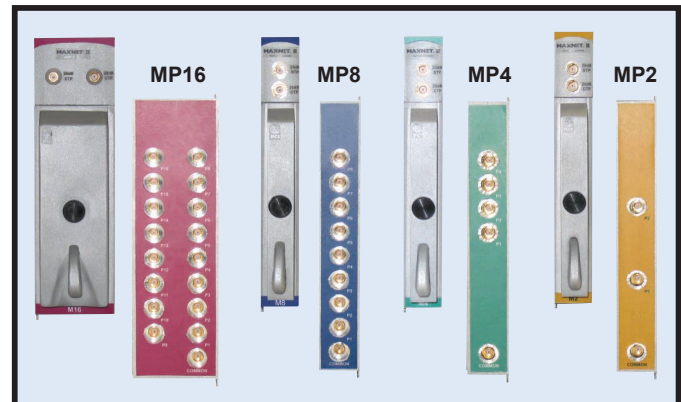
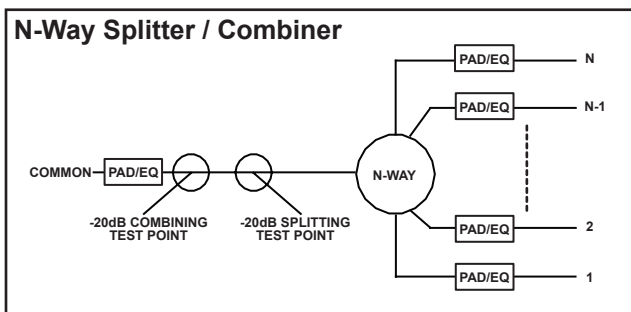
RF & Optical Signal Management

Splitting/Combining Modules:

Ordering Information

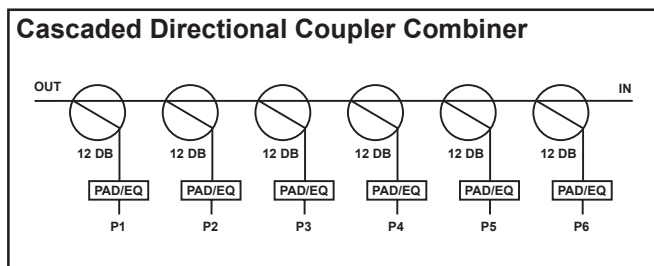
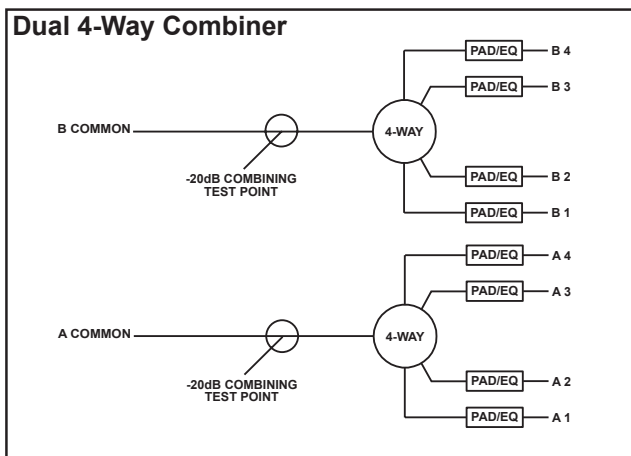
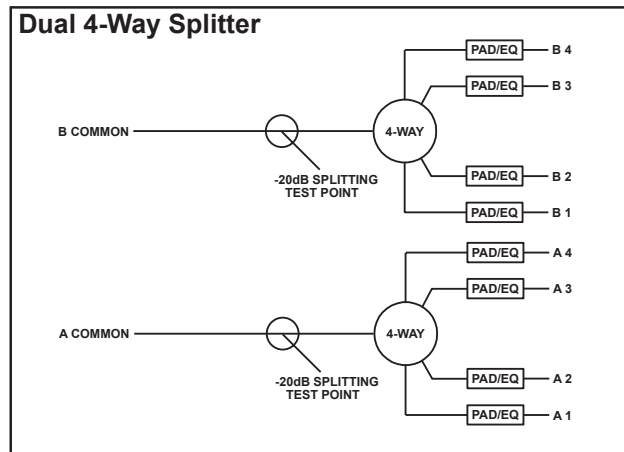
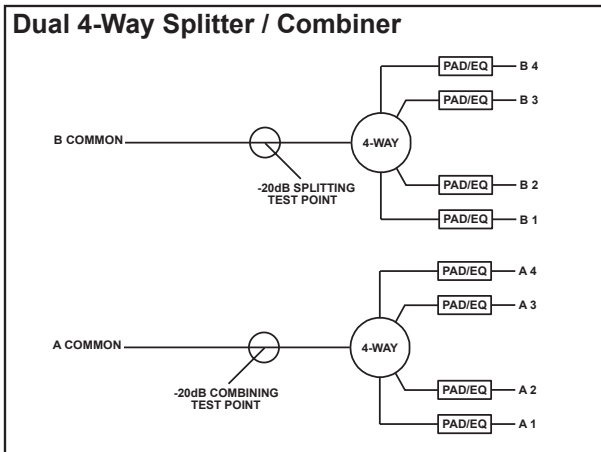
Part Number	Description
MP16	16-Way Splitter / Combiner
MP8	8-Way Splitter / Combiner
MP6-12DC	6 x 12 dB Cascaded Directional Coupler Combiner
MP4	4-Way Splitter / Combiner
MP4-2SC	Dual 4-Way Splitter / Combiner
MP4-2S	Dual 4-Way Splitter
MP4-2C	Dual 4-Way Combiner
MP2	2-Way Splitter / Combiner
MP2-3	Triple 2-Way Splitter / Combiner

Functional Schematics



Splitting/Combining Modules:

Functional Schematics (cont'd)



RF & Optical Signal Management

Plug-in Pads/EQs:

- ▶ Pads & EQs can be easily inserted or removed with fingertips or by using the pad tool (pad tool part # MPPT - see MAXNET®II Accessories spec sheet)
- ▶ Plug-in pads are available from 0-20 dB in 1 dB increments, 16-20 dB recommended for return band only

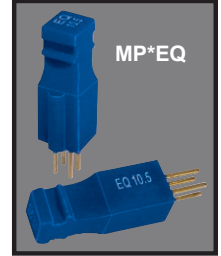
Plug-in Pad/EQ Specifications

dB VALUES	FREQ. RANGE	IMPEDANCE	RETURN LOSS	TILT	FLATNESS
0 dB	5 - 1000 MHz	75 ohm	≥ 20 dB	N/A	N/A
1-20 dB	5 - 1000 MHz	75 ohm	≥ 20 dB	≤ 0.5 dB	+/- 0.2 dB

EQ VALUES	SLOPE 1000/45 MHz	INSERTION LOSS	EQUALIZER TOLERANCE	RETURN LOSS	IMPEDANCE
1.5 dB	1.4 dB	≤ 1 dB	+/- 0.5 dB	≥ 18 dB	75 ohm
3 dB	3.2 dB				
4.5 dB	3.8 dB				
6 dB	5.1 dB				
7.5 dB	6.2 dB				
9 dB	7.1 dB				
10.5 dB	8.7 dB				



* = PAD Value



* = EQ Value

Ordering Information

Part Number	Description
MP*PAD	Plug-in Pad (* = dB value, 0 to 20 dB) (must order in quantities of 10)
MP*EQ	Plug-in Equalizer, 1000 MHz (* = dB value, 1.5 to 10.5 dB) (must order in quantities of 10)

Specifications subject to change without notice.

