

MAXNET® II

Platinum Series

RF & Optical Signal Management

Patented
U.S.# 7,142,414



Passive Products

3RU Active Chassis
(front view)

Directional Coupler Modules:

- ▶ 9,12,16, & 20 dB single and triple directional coupler modules
- ▶ Ultra-dense form factor - incredible space savings (72 DC's in 3RU)
- ▶ Front access to plug-in locations for pads & EQs
- ▶ High performance MCX connector receptacles
- ▶ 5-1000 MHz operation
- ▶ Optimized RF performance
- ▶ All DC modules take up 1 slot in MAXNET® II chassis (total of 24 slots)



Directional Coupler Specifications

MEASUREMENT	FREQUENCY	MP9DC /	MP12DC /	MP16DC /	MP20DC /
		MP9-3DC (1)	MP12-3DC (1)	MP16-3DC (1)	MP20-3DC (1)
		QA (dB)	QA (dB)	QA (dB)	QA (dB)
TAP LOSS and FLATNESS	5-10 MHz	8.8 +/- 0.5	12.2 +/- 0.5	15.8 +/- 0.5	19.4 +/- 0.5
	10-50 MHz	8.9 +/- 0.5	12.2 +/- 0.5	15.8 +/- 0.5	19.4 +/- 0.5
	50-200 MHz	9.0 +/- 0.5	12.3 +/- 0.5	15.9 +/- 0.5	19.4 +/- 0.5
	200-550 MHz	9.2 +/- 0.5	12.5 +/- 0.5	16.0 +/- 0.5	19.6 +/- 0.5
	550-750 MHz	9.3 +/- 0.5	12.7 +/- 0.5	16.2 +/- 0.5	20.0 +/- 0.5
	750-860 MHz	9.4 +/- 0.6	12.6 +/- 0.6	16.3 +/- 0.6	20.1 +/- 0.6
	860-1000 MHz	9.4 +/- 0.7	12.6 +/- 0.7	16.5 +/- 0.7	20.3 +/- 0.7
INSERTION LOSS	5-10 MHz	1.1 +/- 0.5	0.6 +/- 0.5	0.6 +/- 0.5	0.5 +/- 0.5
	10-50 MHz	1.2 +/- 0.5	0.6 +/- 0.5	0.6 +/- 0.5	0.5 +/- 0.5
	50-200 MHz	1.4 +/- 0.5	0.8 +/- 0.5	0.8 +/- 0.5	0.6 +/- 0.5
	200-550 MHz	1.6 +/- 0.5	1.1 +/- 0.5	1.1 +/- 0.5	0.8 +/- 0.5
	550-750 MHz	1.8 +/- 0.5	1.3 +/- 0.5	1.2 +/- 0.5	1.0 +/- 0.5
	750-860 MHz	2.0 +/- 0.6	1.4 +/- 0.6	1.3 +/- 0.6	1.1 +/- 0.6
	860-1000 MHz	2.2 +/- 0.7	1.7 +/- 0.7	1.6 +/- 0.7	1.3 +/- 0.7
ISOLATION (Min)	5-10 MHz	28	30	34	40
	10-50 MHz	28	31	34	40
	50-200 MHz	28	32	34	40
	200-550 MHz	28	32	32	34
	550-750 MHz	28	29	30	31
	750-860 MHz	26	28	29	30
	860-1000 MHz	24	26	28	30
INPUT 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
OUTPUT 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
TAP 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

NOTE:
1) Device to device isolation > 75 dB

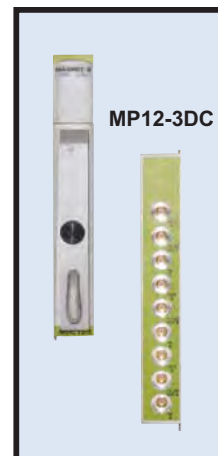
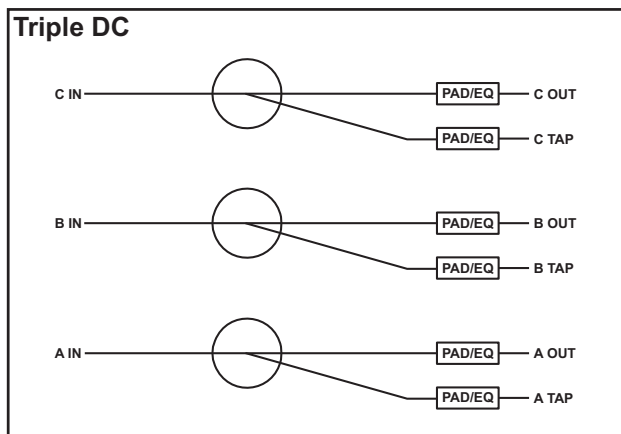
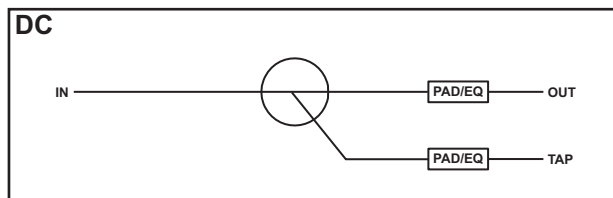
RF & Optical Signal Management

Directional Coupler Modules:

Ordering Information

Part Number	Description
MP9DC	9 dB Directional Coupler
MP9-3DC	Triple 9 dB Directional Coupler
MP12DC	12 dB Directional Coupler
MP12-3DC	Triple 12 dB Directional Coupler
MP16DC	16 dB Directional Coupler
MP16-3DC	Triple 16 dB Directional Coupler
MP20DC	20 dB Directional Coupler
MP20-3DC	Triple 20 dB Directional Coupler

Functional Schematics



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



* = PAD Value



* = EQ Value

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				

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