



MAXNET® II

Platinum Series



Patented
U.S.# 7,142,414

3RU Active Chassis
(front view)

Passive Modules Directional Coupler Modules

- 9, 12, and 20 dB triple directional coupler modules
- Ultra-dense form factor - incredible space savings (72 DCs in 3RU)
- Front access to plug-in locations for pads and EQs
- High performance MCX connector receptacles
- 5-1002 MHz or 5-1218 MHz operational bandwidths available

D3.1/CCAP™
Compliant

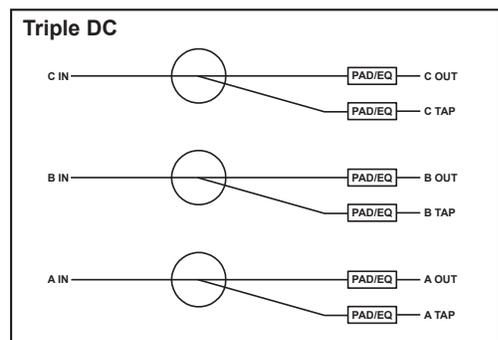
1.2 GHz

- Optimized RF performance
- All DC modules take up one slot in MAXNET® II chassis (total of 24 slots)

Specifications

Triple DC - 1 GHz

		MP9-3DC ⁽¹⁾	MP12-3DC ⁽¹⁾	MP20-3DC ⁽¹⁾
MEASUREMENT	FREQUENCY	QA (dB)	QA (dB)	QA (dB)
TAP LOSS	5-10 MHz	8.8 +/- 0.5	12.2 +/- 0.5	19.4 +/- 0.5
	10-50 MHz	8.9 +/- 0.5	12.2 +/- 0.5	19.4 +/- 0.5
	50-200 MHz	9 +/- 0.5	12.3 +/- 0.5	19.4 +/- 0.5
	200-550 MHz	9.2 +/- 0.5	12.5 +/- 0.5	19.6 +/- 0.5
	550-750 MHz	9.3 +/- 0.5	12.7 +/- 0.5	20 +/- 0.5
	750-860 MHz	9.4 +/- 0.6	12.6 +/- 0.6	20.1 +/- 0.6
	860-1002 MHz	9.4 +/- 0.7	12.6 +/- 0.7	20.3 +/- 0.7
INSERTION LOSS	5-10 MHz	1.1 +/- 0.5	0.6 +/- 0.5	0.5 +/- 0.5
	10-50 MHz	1.2 +/- 0.5	0.6 +/- 0.5	0.5 +/- 0.5
	50-200 MHz	1.4 +/- 0.5	0.8 +/- 0.5	0.6 +/- 0.5
	200-550 MHz	1.6 +/- 0.5	1.1 +/- 0.5	0.8 +/- 0.5
	550-750 MHz	1.8 +/- 0.5	1.3 +/- 0.5	1 +/- 0.5
	750-860 MHz	2 +/- 0.6	1.4 +/- 0.6	1.1 +/- 0.6
	860-1002 MHz	2.2 +/- 0.7	1.7 +/- 0.7	1.3 +/- 0.7
ISOLATION (Min)	5-10 MHz	28	30	40
	10-50 MHz	28	31	40
	50-200 MHz	28	32	40
	200-550 MHz	28	32	34
	550-750 MHz	28	29	31
	750-860 MHz	26	28	30
860-1002 MHz	24	26	30	
RETURN LOSS (Min)	5-1002 MHz	20	20	20
RFI (Min)	5-1002 MHz	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)			



Functional Schematic

NOTE:
(1) Device to device isolation > 75 dB.

Specifications

Triple DC - 1.218 GHz

MEASUREMENT	FREQUENCY	MP9-3DCH ⁽¹⁾			MP12-3DCH ⁽¹⁾			MP20-3DCH ⁽¹⁾		
		MIN (dB)	NOM (dB)	MAX (dB)	MIN (dB)	NOM (dB)	MAX (dB)	MIN (dB)	NOM (dB)	MAX (dB)
TAP LOSS	5-1218 MHz	8	9	10	11	12	13	19	20	21
INSERTION LOSS	5 MHz		1.1	1.7		0.7	1.1		0.5	1
	50 MHz		1.1	1.7		0.8	1.1		0.5	1
	550 MHz		1.9	2.1		1.5	1.9		1	1.2
	870 MHz		2.4	2.6		1.8	2.2		1.4	1.6
	1002 MHz		2.6	2.8		2	2.4		1.5	1.7
	1218 MHz		3	3.2		2.4	2.8		1.8	2
FLATNESS	50-1218 MHz		< 0.4	< 0.7		< 0.4	< 0.7		< 0.4	< 0.7
ISOLATION (Min)	50-1218 MHz	30	32		30	32		30	32	
RETURN LOSS (Min) ANY PORT	5-50 MHz	18	19		19	21		18	21	
	5-1002 MHz	18	19		19	21		19	21	
	1002-1218 MHz	18	20		18	20		19	21	
RFI (Min)	5-1218 MHz	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)									

NOTE:

(1) Device to device isolation >70 dB.

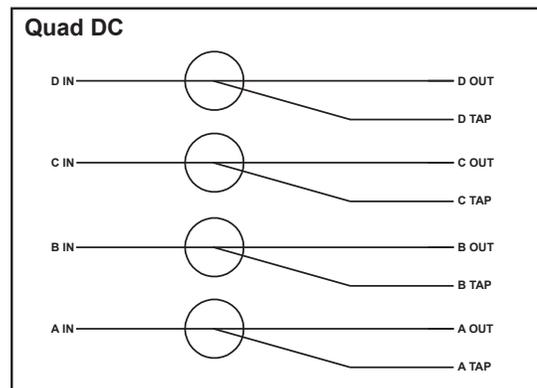
Ordering Information

Part Number	Description
MP9-3DC	Triple 9 dB Directional Coupler, 1 GHz
MP9-3DCH	Triple 9 dB Directional Coupler, 1.218 GHz
MP12-3DC	Triple 12 dB Directional Coupler, 1 GHz
MP12-3DCH	Triple 12 dB Directional Coupler, 1.218 GHz
MP20-3DC	Triple 20 dB Directional Coupler, 1 GHz
MP20-3DCH	Triple 20 dB Directional Coupler, 1.218 GHz

Specifications

Quad DC - 1 GHz

		MP20-4DCN
MEASUREMENT	FREQUENCY	QA (dB)
TAP LOSS	5-10 MHz	20.3 +/- 0.5
	10-50 MHz	20.3 +/- 0.5
	50-200 MHz	20.3 +/- 0.5
	200-550 MHz	20.3 +/- 0.5
	550-750 MHz	20.3 +/- 0.5
	750-860 MHz	20.3 +/- 0.6
	860-1002 MHz	20.3 +/- 0.7
INSERTION LOSS	5-10 MHz	0.5 +/- 0.5
	10-50 MHz	0.5 +/- 0.5
	50-200 MHz	0.6 +/- 0.5
	200-550 MHz	0.8 +/- 0.5
	550-750 MHz	1 +/- 0.5
	750-860 MHz	1.1 +/- 0.6
	860-1002 MHz	1.3 +/- 0.7
ISOLATION (Min)	5-10 MHz	40
	10-50 MHz	40
	50-200 MHz	38
	200-550 MHz	33
	550-750 MHz	32
	750-860 MHz	31
	860-1002 MHz	30
DEVICE-TO-DEVICE ISOLATION (Min)	5-1002 MHz	70
RETURN LOSS (Min)	5-1002 MHz	20
RFI (Min)	5-1002 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)	



Functional Schematic

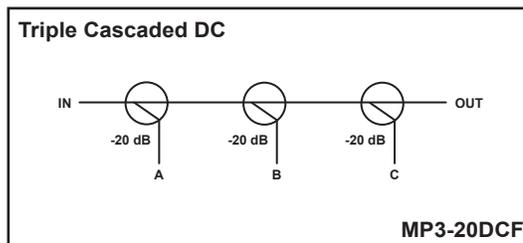
Ordering Information

Part Number	Description
MP20-4DCN	Quad 20 dB Directional Coupler, 1 GHz

Specifications

Cascaded DC

		MP3-20DCF
MEASUREMENT	FREQUENCY	QA (dB)
TAP LOSS	5-750 MHz	20 +/- 0.5
	750-860 MHz	20 +/- 0.75
	860-1006 MHz	20 +/- 1
INSERTION LOSS	5-750 MHz	1.2 +/- 0.5
	750-860 MHz	1.2 +/- 0.6
	860-1006 MHz	1.2 +/- 0.7
ISOLATION (Min)	5-1006 MHz	30
RETURN LOSS (Min) IN	5-10 MHz	18
	10-1006 MHz	20
RETURN LOSS (Min) OUT-TAP	5-1006 MHz	20
RFI (Min)	5-1006 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)	



Functional Schematic

Ordering Information

Part Number	Description
MP3-20DCF	Triple Cascaded 20 dB Directional Couplers, F Connectors

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 and ordering information, see MAXNET II MCX to F & BNC Adapters data sheet (#ANW0618)

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Rev. 10/19 (ANW0622)



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