

MAXNET® II

Platinum Series



Patented
U.S.# 7,142,414

3RU Active Chassis
(front view)

Active Amplifiers & RF Switches Return Path/IF Amplifiers

- 20 and 28 dB, 5-204 MHz Si PP versions available
- High performance MCX connectors (with optional F connectors)
- Front access input and output test points
- Front access to plug-in pad and EQ locations
- Front LEDs provide an indication of amplifier power and status
- Voltage, current, temperature, fan status, nominal RF output power, and RF output power alarm threshold

**D3.1/CCAP™
Compliant**

are easily monitored and controlled over the network (HMS compliant (SNMP v2c)), through a web browser or proprietary network interface; email alarm notification is also supported

- Amplifier module takes up two slots in 3RU MAXNET® II chassis (total of 24 slots)

Specifications

Return RF/IF Amplifier

PART NUMBER ⁽³⁾	GAIN		GAIN & SLOPE CONTROL ⁽¹⁾	TEST POINTS ⁽⁴⁾	RETURN LOSS	DISTORTION PERFORMANCE					NOISE FIGURE	OPERATING CURRENT ⁽²⁾
	BW (MHz)	GAIN ± 1 (dB)				PLUG-IN	I/O (dB)	I/O (dB)	OUTPUT LEVEL (dBmV)	CH. LOAD (#)		
QMP200-28L	5-204	28	INPUT/OUTPUT	20 +/- 1	18	50	10	0	74	65	7	140
QMP200-20L	5-204	20	INPUT/OUTPUT	20 +/- 1	18	50	10	0	75	65	7	140
QMP200-28LF	5-204	28	INPUT/OUTPUT	20 +/- 1	18	50	10	0	74	65	7	140
QMP200-20LF	5-204	20	INPUT/OUTPUT	20 +/- 1	18	50	10	0	75	65	7	140

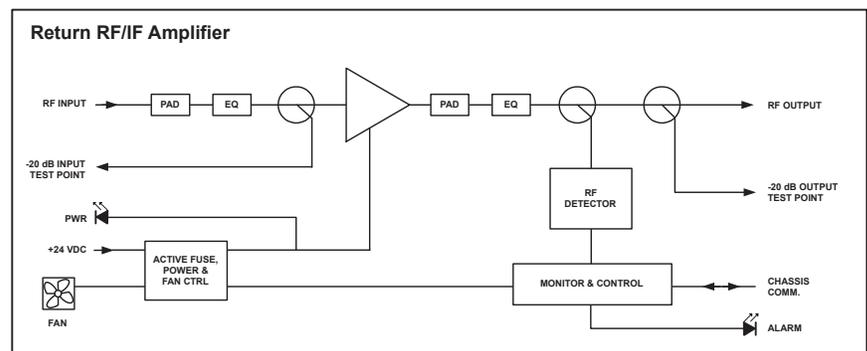
NOTES:

- (1) See functional schematics.
- (2) DC load current at +24 VDC.
- (3) L = MCX connectors; LF = F connectors.
- (4) At test point specified with 0 dB plug-in attenuator and 0 dB plug-in EQ.

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 10.5"D (12.45H x 3.56W x 26.67D cm)
Weight: 2.43 lbs (1.1 kg)

Ordering Information

Part Number	Description
QMP200-28L	204 MHz, 28 dB Gain Single Stage, MCX Connectors
QMP200-20L	204 MHz, 20 dB Gain Single Stage, MCX Connectors
QMP200-28LF	204 MHz, 28 dB Gain Single Stage, F Connectors
QMP200-20LF	204 MHz, 20 dB Gain Single Stage, F Connectors



Functional Schematic

Dual Return Path Amplifiers

- Amplify return path signals in headend/hub site up to 22 dB
- High density, up to 20 return path amplifiers in 3RU chassis with redundant power supplies
- Monitors gain by injecting an out-of-band (4.5 MHz) reference pilot at input, then monitoring that carrier at the output
- Software and front pushbutton gain adjustment
- SNMP/web-based status monitoring and control
- All F connectors on rear of module

Specifications

Dual Return Path Amplifier

Dual Return Path Amplifier		QMP65-IT2F
MEASUREMENT	FREQUENCY	QA (dB)
GAIN	5-65 MHz	0-22 in 0.5 dB steps
	85-100 MHz	< -15
	> 100 MHz	< -30
INPUT INSERTION RELATIVE TO INPUT	5-65 MHz	-20 +/- 1
OUTPUT TEST POINT RELATIVE TO OUTPUT	5-65 MHz	-12 +/- 1
ISOLATION (Min) DC PORT TO DC PORT, OUT	5-65 MHz	30
PORT RETURN LOSS (Min)	5-65 MHz	18
POWER CONSUMPTION	@24 VDC	4.2W
NOISE FIGURE (at Max Gain)	5-65 MHz	< 7
MINIMUM INPUT LEVEL*		-54 dBmV/Hz
MAXIMUM OUTPUT LEVEL*		-19 dBmV/Hz
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 10.5"D (12.45H x 3.56W x 26.67D cm)
WEIGHT		2.43 lbs (1.1 kg)

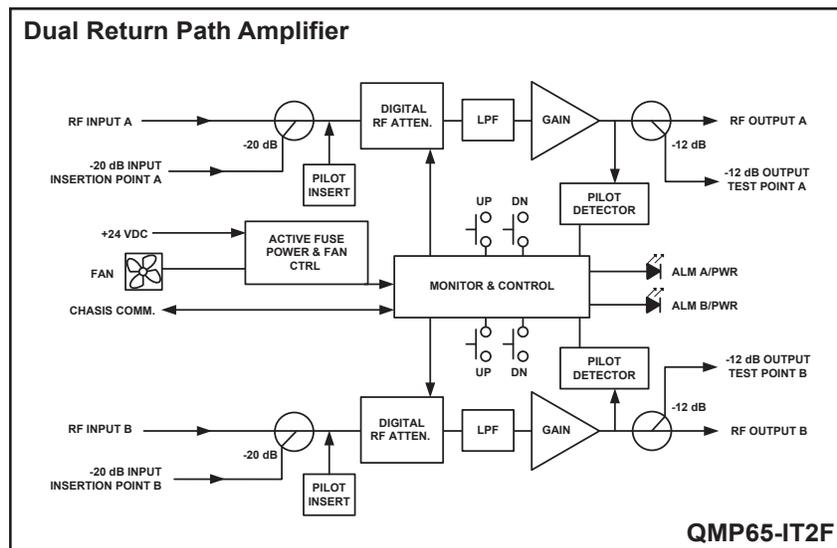
NOTE:

* Values based on 48 MHz of total loading (add 69 dB for 8 MHz QAM, or 67.8 dB for 6 MHz QAM, or 66 dB for 4 MHz QAM). Target BER <1E-8 for 16 QAM modulation.



Ordering Information

Part Number	Description
QMP65-IT2F	Dual Return Path Amplifier, F Connectors



Functional Schematic

Plug-in Pads/EQs



Attenuator Pads



85 or 204 MHz Linear EQs

* = Pad/EQ value

Not for use with QMP65-IT2F module. Other values may be available. For all Pad/EQ specifications and ordering information, see MAXNET II MCX to F & BNC Adapters data sheet (#ANW0618)

Replacement Fan

- Front access replacement fan



Ordering Information

Part Number	Description
MPFANA	Replacement Fan for MAXNET II Receivers, Power Supplies and Amplifiers

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