



# C-Band

## TRAVELING WAVE TUBE POWER AMPLIFIERS

### FOR SATELLITE UPLINK APPLICATIONS



#### MT7100

**Powers:**

2.25kW CW, 2.25kW PK

**Dimensions:**

19.3" [489.0mm] H  
19.0" [483.0mm] W  
24.0" [610.0mm] L

**Weight:**

204 lbs. (93.0kg) nominal



#### MT3200A/MT4000

**Powers:**

400W, 750W

**Dimensions:**

5.25" [134.0mm] H (MT3200A)  
7.0" [178.0mm] H (MT4000)  
19.0" [483.0mm] W  
24.0" [610.0mm] L

**Weight:**

(MT3200A)  
65 lbs. (29.5kg) nominal  
(MT4000)  
75 lbs. (34.0kg) nominal



#### MT3400

**Powers:**

400W

**Dimensions:**

9.6" [244.0mm] H  
11.8" [300.0mm] W  
20.6" [522.0mm] L

**Weight:**

65 lbs. (29.5kg) nominal



#### MT4400

**Powers:**

750W

**Dimensions:**

11.9" [304.0mm] H  
14.3" [364.0mm] W  
23.1" [588.0mm] L

**Weight:**

84 lbs. (38.0kg) nominal

#### AVAILABLE SYSTEM OPTIONS:

1 + 1 Redundant System

1 + 2 Redundant System

Phase Combined, Single and Dual Path Redundant Systems

Other Configurations Available Upon Request

#### AVAILABLE AMPLIFIER OPTIONS:

L-Band Block Upconverter

Switchover Control

Linearizer

Mounting Configurations

Remote Controller

Hand-Held Local Controller

Ethernet Interface

Chassis Color (Antenna Mount Only)

Other Options Available Upon Request

#### C-Band TWTA FEATURES:

Rugged Construction

Calibrated RF Output Monitor

Dual Communications Interfaces

Continuous RF Attenuator Adjustment in 0.1 dB Steps

Automatic Output Power Control

Output Power Reported on the Communication Interfaces

Extensive Diagnostic Capability

Time Stamped Event Log

Automatic Filament Shutdown

Industry-Leading Operating Temperature Range

ISO 9001



# C-Band

## SPECIFICATIONS

Installation	Indoor				Outdoor	
Model	MT3200A	MT4000	MT7100		MT3400	MT4400
Electrical Specifications						
Frequency (GHz)	5.85-7.1 5.85-6.65 5.85-6.75	5.85-7.1 5.85-6.75 5.85-6.45	5.85-6.725 5.85-6.65 5.85-6.425	5.85-6.65	5.85-7.1 5.85-6.725 5.85-6.65	5.85-7.1 5.85-6.75 5.85-6.725 5.85-6.45
TWT Power	400W CW	750W CW	2.25kW CW	2.25kW Peak	400W CW	750W CW
*HPA Rated Peak Power	N/A	N/A	N/A	*2.00kW Peak	N/A	N/A
HPA Max CW (Flange)	N/A	N/A	N/A	1.07kW CW	N/A	N/A
*HPA Rated CW (Flange)	360W CW	665W CW	2.00kW CW	N/A	360W CW	665W CW
IM3 with Linearizer At 4 dB TPBO	-27dBc At 145W	-27dBc At 265W	-27dBc At 800W -25dBc At 800W extended band	-27dBc At 800W -25dBc	-27dBc At 145W	-27dBc At 265W
IM3 without Linearizer At 4 dB TPBO	-18dBc At 145W	-18dBc At 265W	-16dBc At 800W -14dBc At 800W extended band	-16dBc At 800W	-18dBc At 145W	-18dBc At 265W
Environmental Specifications						
Operating Temperature	-10°C to +50°C	0°C to +50°C	-10°C to +50°C (derate by 1.9°C per 1,000 ft. above sea level)		Standard: -40°C to +50°C Optional: -40°C to +60°C	
Non-Operating Temperature	-40°C to +70°C				50°C to +70°C	
Relative Humidity	95% Non-Condensing				100% Condensing	
Operating Altitude	10,000 ft. above sea level (3,048m)					
Non-Operating Altitude	50,000 ft. above sea level (15,240m)					
Vibration	MIL-STD-810E, Method 514.4, Proc. 1, Cat. 1					
Shock	10g, 11 ms half sine					
Mechanical Specifications						
RF Connectors	Input: SMA Female Output: CPR-137F		Input: Type-N Female Output: CPR-137F		Input: Type-N Female Output: CPR-137G	
Cooling	Forced air, 2.0" clearance required					
Acoustic Noise	<68 dBA max. at 1 meter		<72 dBA max. at 1 meter		<68 dBA max. at 1 meter	
Air Flow	100 CFM	190 CFM	RF Drawer: 230 CFM PS Drawer: 150 CFM		150 CFM	250 CFM
Physical Specifications						
Dimensions	5.25" H x 19.0" x 24.0" L (134mm x 483mm x 610mm) 3RU 19 inch rack mount	7.0" H x 19.0" W x 24.0" L (178mm x 483mm x 610mm) 4RU 19 inch rack mount	19.3" H x 19.0" W x 24.0" L (489mm x 483mm x 610mm) 11RU 19 inch rack mount		9.6" H x 11.8" W x 20.6" L (244mm x 300mm x 522mm)	11.9" H x 14.3" W x 23.1" L (304mm x 364mm x 588mm)
Installed Weight	65 lbs. nominal (29.5 kg)	75 lbs. nominal (34 kg)	204 lbs. nominal (93 kg)		65 lbs. nominal (29.5 kg)	84 lbs. nominal (38 kg)

\*Used to calculate Total Power Back-off (TPBO) Start Point.

Note: Performance information is subject to change without notification. Contact MCL for the latest specifications.