



# High Power Wideband

TWTAs covering 2 to 40 GHz

RADAR, EW, AND EMC, WIDEBAND HIGH POWER AMPLIFIERS



## MT4100

### Powers:

50W, 150W, 300W, 450W, 535W

### Dimensions:

5.2" [133.0mm] H-Lower Power, 8.7" [221.0mm] H-Higher Power

19.0" [483.0mm] W

24.0" [610.0mm] L

### Weight:

65 lbs. (29.5kg) nominal - Lower Power

90 lbs. (40.9kg) nominal - Higher Power



## MT3100

### Powers:

50W, 150W

### Dimensions:

9.6" [244.0mm] H

11.8" [300.0mm] W

20.6" [522.0mm] L

### Weight:

49 lbs. (22.2kg) nominal

## AVAILABLE SYSTEM OPTIONS:

Phase Combined, Single and Dual Path Redundant Systems

## AVAILABLE AMPLIFIER OPTIONS:

RF Input Attenuator

Gain Variation Equalizer

Linearizer

Mounting Configurations

Low Gain (without SSA)

Ethernet Interface-Internal to HPA (except 5RU)

Other Options Available Upon Request

## Wideband TWTA FEATURES:

Rugged Construction

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

Manual Override Control

ISO 9001



# Wideband

## SPECIFICATIONS

Installation	Indoor						Outdoor		
Model	MT4100						MT3100		
Electrical Specifications									
Frequency (GHz)	2.0-8.0 2.5-7.5		6.0-18.0 7.5-18.0	18.0-26.5 26.5-40.0		18.0-40.0	18.0-26.5 26.5-40.0		18.0-40.0
TWT Power	2.0-2.5 GHz 150W CW 2.5-8.0 GHz 450W CW	2.5-7.5 GHz 535W CW	300W CW	50W CW	150W CW	18.0-25.0 GHz, 33.0-40.0 GHz 40W CW 25.0-33.0 GHz 63W CW	50W CW	150W CW	18.0-25.0 GHz, 33.0-40.0 GHz 40W CW 25.0-33.0 GHz 63W CW
*HPA Rated Peak Power	N/A								
HPA Max CW(Flange)	N/A								
*HPA Rated CW (Flange)	2.0-2.5 GHz 125W CW 2.5-8.0 GHz 370W CW	2.5-7.5 GHz 500W CW	250W CW	40W CW	125W CW	18.0-25.0 GHz, 33.0-40.0 GHz 40W CW 25.0-33.0 GHz 50W CW	40W CW	130W CW	18.0-25.0 GHz, 33.0-40.0 GHz 32W CW 25.0-33.0 GHz 50W CW
Environmental Specifications									
Operating Temperature	-10°C to +50°C (derate by 1.9°C per 1,000 ft. above sea level)						-40°C to +50°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:	N Female	SMA Female 6.0-18.0 GHz	Type-K Female 18.0-26.5 GHz	Type-K Female	Type-K Female	Type-K Female Standard, WR-42 Optional	Type-K Female Standard, WRD-180 Optional		
Output:	SC Female Standard, N Female Optional	WRD-650 7.5-18.0 GHz WRD-750	WR-42 26.5-40.0 GHz WR-28	WRD-180	WRD-180	WR-42G	WRD-180G		
Cooling	Forced air, 2.0" clearance required								
Acoustic Noise	<68 dBA max. at 1 meter								
Air Flow	100 CFM						150 CFM		
Physical Specifications									
Dimensions	8.7" H x 19.0" W x 24.0" L (221mm x 483mm x 610mm) 5RU 19 inch rack mount		5.2" H x 19.0" W x 24.0" L (133mm x 483mm x 610mm) 3RU 19 inch rack mount			9.6" H x 11.8" W x 20.6" L (244mm x 300mm x 522mm)			
Installed Weight	90 lbs. nominal (40.9 kg)		65 lbs. nominal (29.5 kg)			49 lbs. nominal (22.2 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.