

## Satcom & Antenna Technologies Division



### Overview

The CPI Satcom & Antenna Technologies Inc. (CPI SAT) lightweight 1.8-meter Quick Deploy antennas are designed for worldwide transmit and receive operation in C, X, Ku and Ka-Band. These portable antennas consist of precision compression molded reflectors and a compact aluminum pedestal. This results in a durable antenna with superior stiffness and high performance under wind loading conditions.

The unique shape and the accurate reflector surface provide good sidelobe and cross-polarization performance. The antenna system is a Series 1189 and the reflector consists of a two-segment SMC compression molded assembly. Repeatability is maintained with precision registration of the reflector segments and the feed support structure.

The 1.8-meter antenna, including the feed, is packaged in three portable cases.

### FEATURES:

- Precision compression molded offset reflector
- Compact aluminum pedestal
- Transport cases included
- Two-person assembly in less than 15 minutes
- Captive hardware/fasteners
- No tools required
- Quick adjust positioner
- Intelsat approval (C and Ku-Band)

### OPTIONS:

- Paint/finishes
- Case upgrades
- Multiple feeds -- C, X, Ku and Ka-Band

### BENEFITS:

- Quick deployable (QD)
- Light weight
- High antenna efficiency

### APPLICATIONS:

- Communications, data transfer, broadcast

# 1.8 Meter (QD) Quick Deploy Antenna

Model 1189

## Specifications

ELECTRICAL <sup>(1)</sup>	C-Band Circular Polarized		C-Band Linear Polarized		Ku-Band Linear Polarized		X-Band Circular Polarized	
	Receive	Transmit	Receive	Transmit	Receive	Transmit	Receive	Transmit
Antenna Size	1.8 m (70.86 in.)							
Frequency (GHz)	3.625- 4.200	5.850 - 6.425	3.625 - 4.200	5.850 - 6.425	10.950 - 12.750	13.750 - 14.500	7.250 - 7.750	7.900 - 8.400
Antenna Gain, Midband (dBi)	35.7	39.0	35.7	38.5	44.0	45.3	41.3	42.0
Sidelobe Compliant with	IESS 207 STD H		IESS 207 STD H		IESS 208 STD K		DSCS Requirements	
Axial Ratio	2.99 dB	2.31 dB	-----	-----	-----	-----	1.5 dB	1.5 dB
VSWR	1.30:1 Max		1.30:1 Max		1.30:1 Max		1.30:1 Max	
Antenna Noise Temperature (K)								
5° Elevation	65 K		56 K		71 K		70 K	
10° Elevation	51 K		42 K		58 K		59 K	
20° Elevation	46 K		37 K		51 K		54 K	
40° Elevation	47 K		38 K		49 K		55 K	
Cross Polarization Isolation (dB)								
On Axis	15.3 dB	17.5 dB	30.0 dB	30.0 dB	30.0 dB	30.0 dB	21.3 dB	21.3 dB
Within 1.0 dB Beamwidth	15.3 dB	17.5 dB	23.0 dB	23.0 dB	23.0 dB	23.0 dB	21.3 dB	21.3 dB
Pattern Beamwidth (in degrees at 4.000/6.138 GHz)								
-3 dB, at midband	2.78	2.02	2.78	2.02	0.96	0.84	1.42	1.31
-15 dB, at midband	5.84	4.24	5.84	4.24	2.02	1.76	2.98	2.75
Power Handling (total)	2.00 kW CW		2.00 kW CW		2.00 kW CW		1.00 kW CW	
Output Waveguide Interface Flange	CPR-229G	CPR-137G	CPR-229G	CPR-137G	WR 75 Flat	WR 75 Flat	WR 112	WR 112
RF Specification	975-1003		975-3075		975-3079		975-3333	

<sup>(1)</sup> Some specifications may vary based on the combination of equipment, options and/or upgrades ordered.

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Model 1189

## Specifications

MECHANICAL <sup>(1)</sup>			
Reflector Material	Two or four piece composite reinforced materials (SMC)		
Antenna Optics	Prime focus, offset feed, 0.6 F/D ratio		
Elevation Adjustment Range	5° to 90°		
Azimuth Adjustment Range	±34° continuous, fine adjustment		
Shipping Specifications	Case quantity and size	Component weight	Total weight (component and case)
Reflector Petals Case	1 @ 80" x 18" x 44"H	84 lbs. (31.5 kg)	212 lbs. (79 kg)
Reflector Petals (4-piece, optional)	2 @ 41" x 14" x 39"H	44 lbs. (16 kg) each	93 lbs. (34.5 kg)
Pedestal Case	1 @ 54" x 14" x 11"H	46 lbs. (17 kg)	77 lbs. (29 kg)
Legs and Struts Case	1 @ 49" x 18" x 10"H	39 lbs. (14.5 kg)	72 lbs. (27 kg)
Totals (2-piece configuration)	1 @ 56" x 80" x 50"H (on skid)	169 lbs. (63 kg)	404 lbs. (151 kg) includes skid and feed
Net Weight of Antenna	169 lbs. (63 kg), feed packed separately, consult factory for details		

ENVIRONMENTAL <sup>(1)</sup>	
Wind Loading	Operational Survival
	20 mph (32 km/h), gusting to 34 mph (55 km/h), with ballast or anchors 60 mph (97 km/h), with ballast or anchors
Temperature	Operational
	-40° to +140° F (-40° to +60° C)
Rain	Operational
	1/2 inch/h (12mm/h) radial
Ice	Operational
	1/2 inch (12 mm)
Atmospheric Conditions	
	Salt, pollutants and contaminants as encountered in coastal and industrial areas
Relative Humidity	
	0 to 100%
Solar Radiation	
	360 BTU/h/ft <sup>2</sup> (1,000 Kcal/h/m <sup>2</sup> )

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Contact us at [CustomerCareSAT@cpii.com](mailto:CustomerCareSAT@cpii.com) or call us at +1 770-689-2040

The data should be used for basic information only.  
Formal, controlled specifications may be obtained from CPI for use in equipment design.



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