

# 5G SOLUTIONS

CPI Satcom & Antenna Technologies' New Range of Specially Configured RxO Terminals



## FEATURES:

- Fully 5G Compliant TVRO Terminal Solution
- Support for Multi-Satellite Feed Systems
- Accommodates New 5G C-Band Spectrum Requirement
- Available in 2.4m, 3.7m and 4.5m Sized Antenna Systems
- Guaranteed Performance, Highly Reliable, Cost Effective
- 5-year Comprehensive Terminal Warranty

CPI SAT is offering a range of specially configured RxO terminals to accommodate the changes to C-Band satellite spectrum under the 5G initiative. These 2.4m, 3.7m and 4.5m terminals include 5G band-pass filters and PLL LNBS to satisfy these new requirements.

The FCC has allocated the lower 300 MHz of C-Band 3.7-4.2 GHz frequency spectrum to facilitate 5G technology. This essentially leaves the upper 200 MHz of frequency spectrum for the use of C-Band satellite technology.

This change primarily affects CONUS locations (other U.S. states and territories not affected) and applies to all of the satellite operators providing C-Band TVRO solutions to customers.

## KEY FEATURES:

- 3 sizes; 2.4m, 3.7m, and 4.5m
- C-Band RxO Satellite Feed System
- Support for Linear, Single or Dual Polarity
- Band Pass Filter for 5G Weighing <650 g (<1.43 LBS)
- Band Pass Filter Rejects Energy < 4.0 GHz at 60 dB
- PLL LNB +/- 5.15 KHz LO Stability & Low Phase Noise

## KEY BENEFITS:

- CPI's Industry Knowledge and Innovation
- One-Stop-Shop Procurement from CPI
- Fully Engineered and Integrated Package
- Guaranteed Performance
- 5-year Comprehensive Warranty
- CPI's Full Support 24/7/365

CPI SAT's C-Band Antenna or terminal solutions are integrated with a special band-pass filter and high performance LNB to accommodate the 5G applications. The band-pass filter rejects the 3.70 - 3.98 GHz portion of frequency spectrum, which is used by 5G technology, and allows the antenna system to receive 4.0-4.2 GHz satellite spectrum. The antenna system is available in single or dual polarity depending upon customer's requirement.

CPI SAT also offers these antennas in a base configuration for customers that wish to provide their own filters and LNBS.

## LNB SPECIFICATIONS

RF Frequency	3.625 to 4.200 GHz
L.O Frequency	5.15 GHz
IF Frequency	950 to 1.525 MHz
Local Stability	+/- 1 ppm (-40 to +60C)
IF Connector	F-Type
IF Power Req.	+24 VDC (+12 to +24 VDC)

## FILTER SPECIFICATIONS

Pass Band Frequency	4.0 - 4.2 GHz
VSWR	1.4:1 Max
Insertion Loss In Band	1.4 dB Max
Rejection	60 dB min @ 3.98GHz 25 dB min @ 4.23GHz

# TERMINAL SPECIFICATIONS

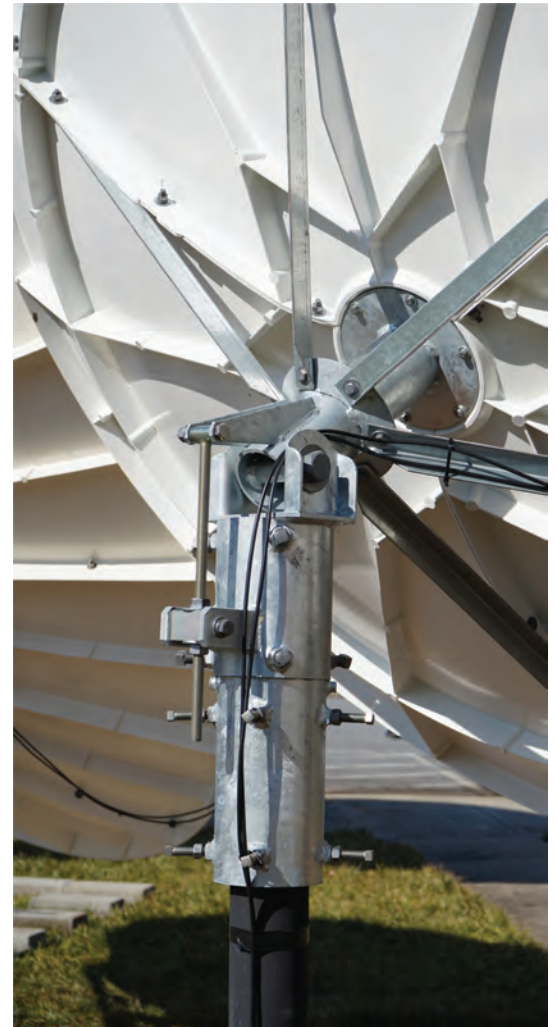


ANTENNAS			
Model	1252	1374	1451
<b>RF PERFORMANCE</b>			
Aperture Size	2.4m	3.7m	4.5m
Operating Frequency	4.0 - 4.2 GHz		
Antenna Gain (Mid Band, +/- .3 dB)*	37.8 dBi	41.2 dBi	42.6 dBi
Antenna Noise Temp			
10° Elevation	37K	35K	32K
20° Elevation	33K	30K	29K
30° Elevation	30K	27K	25K
Cross-Pol Isolation (Typical)	> 30 dB (On Axis)		
VSWR	1.4:1 Max		
G/T (w/ supplied LNB and filter)			
10° Elevation	19.2 dB/K	22.8 dB/K	24.5 dB/K
20° Elevation	19.6 dB/K	23.3 dB/K	24.8 dB/K
30° Elevation	19.9 dB/K	23.6 dB/K	25.1 dB/K
<b>MECHANICAL PERFORMANCE</b>			
Reflector Material	Glass Fiber Reinforced Polyester SMC		
Reflector Optics	3 piece, .37 F/D	8 piece, .37 F/D	8 piece, .30 F/D
Mount Type	Elevation over Azimuth		
Elevation Adjustment Range	0° to 90°	10° to 70°	5° to 90°
	Continuous	Continuous	Continuous
	Fine Adjustment	Fine Adjustment	Fine Adjustment
Azimuth Adjustment Range	360°	360°	360°
	Continuous	Continuous	Continuous
	Coarse Adjustment	Fine Adjustment	+/- 11° Fine Adjustment
Mast Pipe Size	5" SCH Pipe (5.56" OD)	6" SCH Pipe (6.63" OD)	10" SCH Pipe (10.75" OD)
<b>ENVIRONMENTAL PERFORMANCE</b>			
Wind Loading - Operational	50 mile/hour	45 mile/hour	45 mile/hour
Wind Loading - Survival	125 mile/hour	125 mile/hour	125 mile/hour
Operating Temperature Range	-40° to 140° F	-40° to 140° F	-40° to 140° F
Operating Temperature Survival	-50° to 160° F	-50° to 160° F	-50° to 160° F

\* Antenna Gain at Feed Flange



## SATCOM & ANTENNA TECHNOLOGIES DIVISION



For more information contact  
Customer Care at +1 (770) 689-2040  
customer care sat@cpii.com  
[www.cpii.com/antennas](http://www.cpii.com/antennas)

Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design. © 2021 Communications & Power Industries LLC. Company proprietary; use and reproduction is strictly prohibited without written authorization from CPI.

