

C-Band GaN 4.0 kW Pulsed Solid State Transmitter

VSC3700

Features:

- Four combined 1.1 kW pulsed modules
- High efficiency GaN transistors
- BIT & controls via EIA-422 remote connection
- Blind mate DC and control connectors
- Controllable output power reduction

Benefits:

- Easy to maintain
- High gain
- Excellent pulse fidelity
- Outstanding spectral performance



Note: Several form, fit configurations available

C-Band RF Power Modules

High efficiency, high power and compact with proven GaN technology, the VSC3700 can be easily combined to create high power C-band radar transmitters, up to 50 kW.

CPI BMD's solid state transmitters are reliable, highly-efficient and easy to maintain. The VSC3700 solid state transmitters are designed for use in maritime, surveillance and weather radar transmitters and cover the 5.4 – 5.9 GHz frequency band. GaN transistors are combined into a 4.0 kW output and are air cooled.

Applications:

- Maritime and defense radars
- High resolution weather radars



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Note: Can be power-combined for higher power levels

Specifications	
Frequency range	5.4 to 5.9 GHz
Minimum saturated peak RF output	4.0 kW
Typical pulse width	1 to 100 μsec
Maximum pulse droop	0.5 dB
Maximum duty cycle	10%
Output power flatness across frequency range	±1 dB
RF input Level	+8+/- 2 dB
Stability	60 dB
Maximum output VSWR	1.5:1
Harmonic output	-35 dBc
Maximum Interpulse Thermal Noise	-160co dBm/Hz
Noise power density	-100 dBc in a 100 MHz bandwidth
Pulse repetition rate	To 1.2 KHz
NTIA Compliance	Compliant for a radar of this frequency – with customer pulse shaping as required.

Mechanical & Environmental Specifications	
Prime power	55 VDC @ 38 Amps
Operating ambient Temperature	+5° to +50° C
Non-condensing relative humidity	95%
Operating altitude	15,000 ft (4.57 km)
Shock and vibration	Rack mounted – shipboard/ground
Cooling	Air cooled to +50C
RF Input connection	N-type Female
RF Output connection	WR 187 Waveguide
Control and Monitor	Control connector
Dimensions	Nominally 19 in.(482.6 mm)
	Nominally 14 in.(406.4 mm)
	Nominally 27 in.(685.8 mm)
Maximum weight	100 lbs.(46 kg)

The values listed above represent specified limits for the product and are subject to change. The data should be used for basic information only. Formal, controlled specifications may be obtained from CPI for use in equipment design.