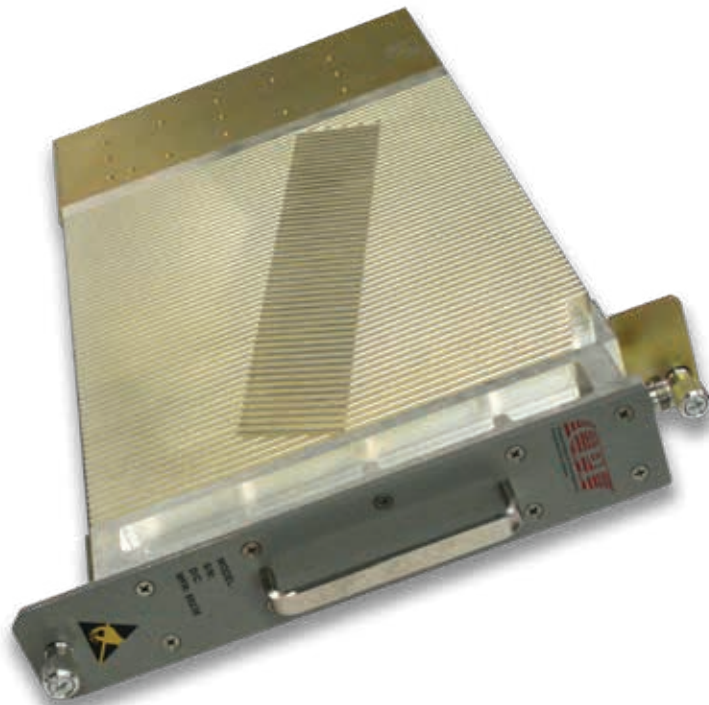


Communications & Power Industries Beverly Microwave Division RF Power Modules



C-Band RF Power Modules

High efficiency, high power and compact with proven GaN technology. Can be easily combined to create high power C-band radar transmitters.

CPI BMD's solid state power amplifiers are reliable, highly-efficient and easy to maintain. The VSC3644 solid state power amplifiers are designed for use in maritime surveillance and weather radar transmitters and cover the 5.2 – 5.9 GHz frequency band. GaN transistors are combined into a 1.0 kW output and are air cooled. These 1.0 kW bricks can be power-combined using waveguide combiners to achieve the power levels required for various radars.

FEATURES:

- Building block for C-band radar systems
- 1.0 kW pulsed modules
- High efficiency GaN transistors
- BIT & controls via EIA-422 remote connection
- Blind mate DC and control connectors
- 6dB output power reduction mode

BENEFITS:

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

APPLICATIONS:

- Maritime and defense radars
- High resolution weather radars

C-Band GaN Solid State Power Amplifier Module: VSC3644

Specifications

Frequency range	5.2 to 5.9 GHz
Typical saturated peak RF output with input 12 dBm	1.0 kW
Typical pulse width	1 to 100 μ sec
Maximum pulse droop	0.5 dB
Maximum duty cycle	10%
Output power flatness across frequency range	1 dB
Nominal small signal gain	46 dB
Pulse to pulse stability	62 dB
Maximum output VSWR	1.5:1
Maximum harmonic output	-35 dBc
Maximum Interpulse noise at 30 μ s	-165 dBm/Hz
Pulse repetition rate	To 1.2 KHz
NTIA Compliance	Compliant for a radar of this frequency – with customer pulse shaping as required.

Mechanical and Environmental Specifications

Prime power	52 VDC @ 9.4 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 – ground benign
Cooling	Forced convection to RT 100 cfm
Operational with reduced performance	+50°C
RF Input connection	SMA Jack
RF Output connection	N Jack
RF Output and VSWR monitor	Control connector
Dimensions (width)	1.97 in.(5.0 cm)
Dimensions (height)	9.3 in.(23.6 cm)
Dimensions (depth)	18 in.(45.7 cm) Excluding connectors
Maximum weight	20 lbs.(9.0 kg)

