

Very Efficient Power Amplifier (VEPA-10W)

10 W Linear, 20 W Non-Linear

COBHAM

The most important thing we build is trust.

Applications

- UAV/UGV Transmission
- Airborne Surveillance & Data Links
- COFDM Transmission
- FM Transmission
- Mobile and Portable Applications
- Electronic News Gathering (ENG)

Key Features

- Very Efficient
- High Linearity
- Adjustable Gain
 - Local – Rotary Switch
 - Remote Control
- 9-32 VDC Supply Voltage
- Compact and Lightweight



GMS' Very Efficient Power Amplifier (VEPA) series is specifically designed for COFDM and other demanding modulation schemes. However, they can also be used for non-linear modulation schemes like FM. This 31 W P1dB Power Amplifier provides up to 10 Watts of COFDM power or 20 Watts of FM power in a small economical package. This Linear Class A Power Amplifier provides a maximum of 41 dB of gain. The Gain can be adjusted down from this point from 0 to 15 dB in 1 dB steps. A rotary switch on the housing can be used for local gain control and a 6 pin LEMO connector allows remote control via BCD logic grounding through an external cable. These units are designed for rugged use and operate from -10°C to +65 °C with up to 95% humidity (non-condensing). The unit has reversed polarity protection and open/short load protection.

Very Efficient Power Amplifier (VEPA-10W)

10 W Linear, 20 W Non-Linear



Specifications

Parameter		Specification			
Cobham part number		VEPA-10L2	VEPA-10S1	VEPA-10S2	VEPA-10S3
Frequency (GHz)		1.7 - 1.85	2.2-2.4	1.99-2.5	2.2-2.7
Frequency Band		L2	S1	S2	S3
Linear Gain (dB center band with attenuator set to 0). (gain is adjustable through front panel switch or remote control) ^(NOTE 1)		42	41	41	41
Gain Adjustment Range (dB)		0 to -15	0 to -15	0 to -15	0 to -15
Adjustment Resolution (dB)		1	1	1	1
Flatness (dB)		+/-0.5	+/-0.5	+/-1.5	+/-1.0
P1dB (dBm)		45	45	45	45
Input/Output VSWR		1.3:1	1.3:1	1.4:1	1.4:1
Rated COFDM Output PWR		10W	10W	10W	10W
MER Stationary QPSK (dB) ^(NOTE 2)	8 W	30	30	29	29
	10W	28	28	27	27
Current (A@ 12 VDC) ^(NOTE 3)	8 W	3.7	3.7	3.8	3.8
	10W	4.1	4.1	4.2	4.2
DC input voltage (Vdc)		9-32			
Mechanical Dimension (without heatsink)		7.5"L x 4"W x 0.79"H			
Weight	lbs	1.57			
	grams	711			
Base-plate Temperature		-10 °C to + 65 °C			
Operating Humidity		95% Non-condensing			
Control Connector (Pins 1 through 5 enable low)		ODU-G50L0C-P06LCC0-0000			
		Pin 1: 1dB			
DC Power Connector		Solder pins			
RF Connectors		SMA Female			

Note 1: Average gain among units at the center of the band.

Note 2: Indicated MER is average value across the band.

Note 3: Indicated Current is average value across the band.