



**Model 500A250C,  
M1 through M10  
500 Watts CW  
10kHz–250MHz**

The Model 500A250C is a self-contained, air-cooled, broadband, completely solid state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull LDMOS circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 500A250C, when used with an RF sweep generator, will provide a minimum of 500 watts of swept power.

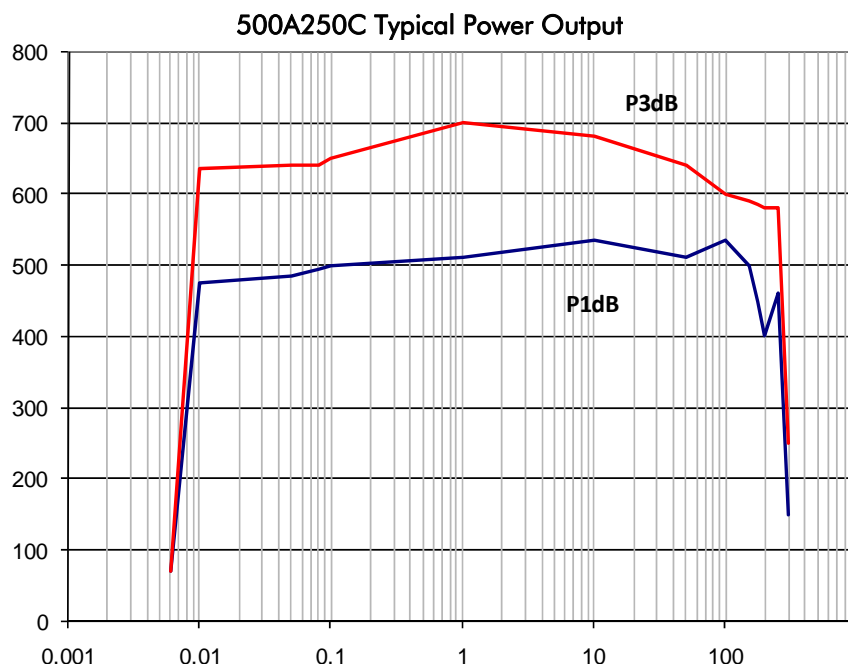
The Model 500A250C is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a color LCD touch screen and a single rotary knob to offer status reporting and control capability. The display provides operational presentation of Forward Power and Reflected Power plus control status and reports of internal amplifier status. Special features include a gain control, pulse input capability, forward RF sample port, and a reflective RF sample port for precise power measurements.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488, RS-232, RS-232 fiber optic, Ethernet and USB format. The buss interface connectors are located on the back panel and positive control of local or remote operation is assured by a switch on the front panel of the amplifier.

High efficiency universal input, power factor corrected switching power supplies provides DC to all internal sub-assemblies.

Housed in a stylish, contemporary enclosure, the Model 500A250C provides readily available RF power for typical applications such as RF susceptibility testing, antenna and component testing, watt meter calibration, particle accelerators, plasma generation, communications and use as a driver for higher power amplifiers.

The export classification of this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.



## SPECIFICATIONS, MODEL 500A250C

RATED OUTPUT POWER .....	500 watts
INPUT FOR RATED OUTPUT .....	1.0 milliwatt maximum
POWER OUTPUT @ 3 dB compression	
Nominal .....	600 watts
Minimum .....	500 watts
POWER OUTPUT @ 1 dB compression	
Nominal .....	500 watts
Minimum .....	350 watts
FLATNESS.....	± 2.5 dB maximum
FREQUENCY RESPONSE .....	10 kHz–250 MHz instantaneously
GAIN (at maximum setting) .....	57 dB minimum
GAIN ADJUSTMENT (continuous range).....	20 dB minimum
INPUT IMPEDANCE.....	50 ohms, VSWR 1.5:1 maximum
OUTPUT IMPEDANCE .....	50 ohms, nominal
MISMATCH TOLERANCE.....	100% rated power without foldback up to 6.0:1 mismatch, above which may limit to 250W reflected power. Will operate without damage or oscillation with any magnitude and phase of source and load impedance.
MODULATION CAPABILITY.....	Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal
HARMONIC DISTORTION.....	Minus 20 dBc maximum at 350 watts
THIRD ORDER INTERCEPT POINT .....	65 dBm typical
RF POWER DISPLAY .....	0–750 watts full scale
PRIMARY POWER .....	180 - 264 VAC 47–63 Hz, 2500 watts maximum @ 0.99 P.F. typical
CONNECTORS	
RF input .....	See Model Configuration
RF output .....	See Model Configuration
Forward Sample.....	BNC female on front panel (coupling factor 60 dB typical)
Reverse Sample.....	BNC female on front panel (coupling factor 60 dB typical)
Pulse Modulation Input.....	BNC female on rear panel
Safety Interlock.....	15 pin female Type D on rear panel
REMOTE CONTROL	
IEEE-488.....	24-pin female on rear panel
RS-232 .....	9 pin female Type D on rear panel
RS-232 (Fiber optic).....	Type ST on rear panel
USB.....	Type B female on rear panel
Ethernet .....	RJ-45
COOLING.....	Forced air (self-contained fans)
WEIGHT, maximum .....	See Model Configurations
SIZE (W x H x D).....	See Model Configurations
EXPORT CLASSIFICATION .....	EAR99

**MODEL CONFIGURATIONS**

<b>Model Number</b>	<b>RF Input</b>	<b>RF Output</b>	<b>Weight</b>	<b>Size</b>
500A250C	Type N female, front	Type N female, front	45.8 kg (101 lb)	50.3 x 34 x 56.9 cm 19.8 x 13.4 x 22.0 in
500A250CM1	Type N female, rear	Type N female, rear	45.8 kg (101 lb)	50.3 x 34 x 56.9 cm 19.8 x 13.4 x 22.0 in
500A250CM2	BNC female, rear	7-16 DIN female, rear	45.8 kg (101 lb)	50.3 x 34 x 56.9 cm 19.8 x 13.4 x 22.0 in
500A250CM3	See separate specification sheet.			
500A250CM4	Same as 500A250CM2 with enclosure removed for rack mounting.		35.4 kg (78 lb)	48.3 x 30.5 x 54.4 cm 19.0 x 12.0 x 21.4 in
500A250CM5	Type N female, front	7-16 DIN female, rear	45.8 kg (101 lb)	50.3 x 34 x 56.9 cm 19.8 x 13.4 x 22.0 in
500A250CM6	Same as 500A250CM1 with enclosure removed for rack mounting.		35.4 kg (78 lb)	48.3 x 30.5 x 54.4 cm 19.0 x 12.0 x 21.4 in
500A250CM7	Type N female, front	Type N female, rear	45.8 kg (101 lb)	50.3 x 34 x 56.9 cm 19.8 x 13.4 x 22.0 in
500A250CM8	BNC female, rear	Type N female, rear	35.4 kg (78 lb)	48.3 x 30.5 x 54.4 cm 19.0 x 12.0 x 21.4 in
500A250CM9	Same as 500A250C with enclosure removed for rack mounting.		35.4 kg (78 lb)	48.3 x 30.5 x 54.4 cm 19.0 x 12.0 x 21.4 in
500A250CM10	See separate specification sheet.			