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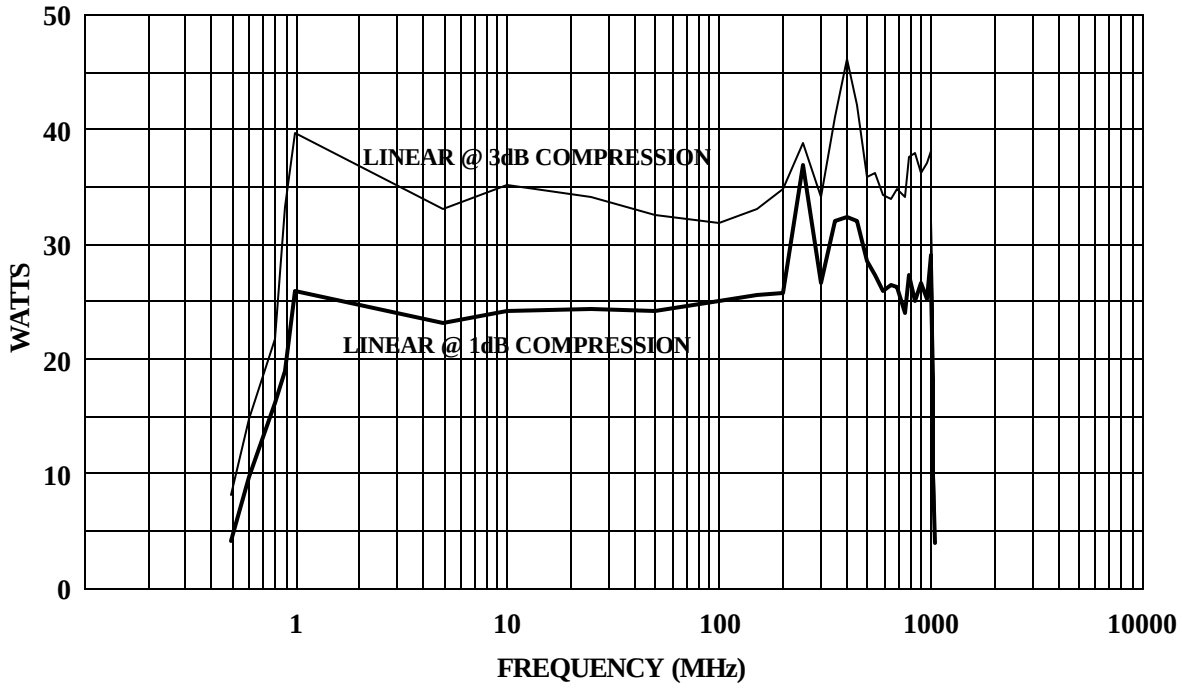
MODELS 30W1000B
M1, M2, M3, M4
30 WATTS CW
1-1000 MHz

The Model 30W1000B is a portable, self-contained, air-cooled, broadband, solid state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull circuitry is utilized in the high power stages to lower distortion and improve stability. The 30W1000B, when used with an RF sweep generator, will provide a minimum of 30 watts of swept power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The 30W1000B is protected from RF input overdrive by limiting diodes and an RF input leveling circuit which controls the RF input level to the RF amplifier first stage when the RF input level is increased above 0 dBm. The RF Amplifier stages are protected from over temperature by removing the DC voltage to them if an over temperature condition occurs due to cooling blockage or fan failure. There is a digital display on the front panel to indicate the operate status and fault conditions when an over temperature, power supply, or amplifier fault has occurred. The unit can be returned to operate when the condition has been cleared. The 30W1000B includes digital control for both local and remote control of the amplifier. This 8-bit RISC microprocessor controlled board provides both IEEE-488 (GPIB) and asynchronous, full duplex RS-232 control of all amplifier functions.

30W1000B TYPICAL POWER OUTPUT



REV030102

SPECIFICATIONS
Model 30W1000B

RATED OUTPUT POWER ..... *30 watts minimum*

INPUT FOR RATED OUTPUT ..... *1.0 milliwatt maximum*

POWER OUTPUT @ 3dB COMPRESSION
Nominal ..... *36 watts*
Minimum ..... *30 watts*

POWER OUTPUT @ 1dB COMPRESSION
Nominal ..... *27 watts*
Minimum ..... *20 watts*

FLATNESS ..... *±1.0 dB typical*
±1.5 dB maximum

FREQUENCY RESPONSE ..... *1-1000 MHz instantaneously*

GAIN (at maximum setting) ..... *45 dB minimum*

GAIN ADJUSTMENT (Continuous Range) ..... *20 dB minimum (4096 steps remote)*

INPUT IMPEDANCE ..... *50 ohms, VSWR 2.0:1 maximum*

OUTPUT IMPEDANCE ..... *50 ohms, nominal*

*MISMATCH TOLERANCE ** ..... *100% of rated power without foldback. 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 25 watts*
THIRD ORDER INTERCEPT POINT ..... *52 dBm typical*

PRIMARY POWER (selected automatically) ..... *90-132, 180-264 VAC*
50/60 Hz, single phase
325 watts maximum

REMOTE INTERFACES *IEEE-488, RS-232*

CONNECTORS
RF ..... *Type N female*
REMOTE CONTROL
IEEE-488 ..... *24 pin female*
RS-232 ..... *9 pin Subminiature D female*

REMOTE INTERLOCK ..... *15 Pin Subminiature D*

COOLING ..... *Forced air (self contained fans)*

WEIGHT ..... *See Model Configurations*

SIZE (WxHxD) ..... *See Model Configurations*

** See Application Note #27*

MODEL CONFIGURATIONS

MODEL NUMBER	*RF INPUT*	*RF OUTPUT*	*WEIGHT*	*WEIGHT*
30W1000B	*Type N female on front panel*	*Type N female on front panel*	*20.5 kg (45.0 lb)*	*50.3 x 15.5 x 37.6 cm* *19.8 x 6.1 x 14.8 in*
30W1000BM1	*Type N female on rear panel*	*Type N female on rear panel*	*20.5 kg (45.0 lb)*	*50.3 x 15.5 x 37.6 cm* *19.8 x 6.1 x 14.8 in*
30W1000BM2	*Same as 30W1000B with enclosure removed for rack mounting*		*16.0 kg (35.0 lb)*	*48.3 x 12.7 x 37.6 cm* *19.0 x 5.0 x 14.8 in*
30W1000BM3	*Same as 30W1000BM1 with enclosure removed for rack mounting*		*16.0 kg (35.0 lb)*	*48.3 x 12.7 x 37.6 cm* *19.0 x 5.0 x 14.8 in*
30W1000BM4	*Same as 30W1000B – modified to operate when AC input applied* *Local/Remote Switch from toggle to rocker switch*		*20.5 kg (45.0 lb)*	*50.3 x 15.5 x 37.6 cm* *19.8 x 6.1 x 14.8 in*