

130T18G26z5B

- M1–M7
- 130 Watts CW
- 18GHz–26.5GHz

Features

The Model 130T18G26z5B is a self contained, forced air cooled, broadband traveling wave tube (TWT) microwave amplifier designed for applications where wide instantaneous bandwidth, high gain and moderate power output are required. A reliable TWT provides a conservative 130 watts minimum at the amplifier output connector. Stated power specifications are at the fundamental frequency.

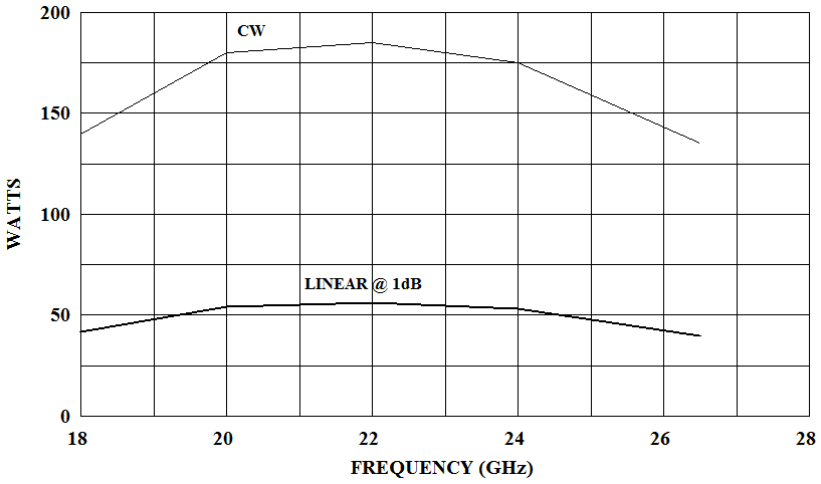
The amplifier's front panel digital display shows forward and reflected output plus extensive system status information accessed through a series of menus via soft keys. Status indicators include power on, warm-up, standby, operate, faults, excess reflected power warning and remote. Standard features include a built-in IEEE-488 (GPIB) interface, 0dBm input, VSWR protection, gain control, forward and reflected RF output sample port, auto sleep, plus monitoring of TWT helix current, cathode voltage, collector voltage, heater current, heater voltage, baseplate temperature and cabinet temperature. Modular design of the power supply and RF components allow for easy access and repair. Use of a switching mode power supply results in significant weight reduction.

Housed in a stylish contemporary cabinet, the unit is designed for benchtop use but can be removed from the cabinet for rack mounting. The Model 130T18G26z5B provides readily available RF power for a variety of applications in Test and Measurement, (including EMC RF susceptibility testing), Industrial and University Research and Development, and Service applications. This sub-octave amplifier features moderate harmonic content.

The export classification for 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.

See Model Configurations for alternative packaging and special features.

130T18G26z5B TYPICAL POWER OUTPUT



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Specifications

POWER (fundamental), CW, @ OUTPUT CONNECTOR: Nominal, 150 watts; Minimum, 130 watts; Linear @ 1 dB Compression, 30 watts minimum

FLATNESS: ± 9 dB maximum

FREQUENCY RESPONSE: 18–26.5 GHz instantaneously

INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum

GAIN (at maximum setting): 52 dB minimum

GAIN ADJUSTMENT (continuous range): 35 dB minimum

INPUT IMPEDANCE: 50 ohms, VSWR 2.0:1 maximum

OUTPUT IMPEDANCE: 50 ohms, VSWR 2.5:1 maximum

MISMATCH TOLERANCE: Output power foldback protection at reflected power exceeding 20 watts. Will operate without damage or oscillation with any magnitude and phase of source and load impedance. May oscillate with unshielded open due to coupling to input. Should not be tested with connector off.

MODULATION CAPABILITY: Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal. AM peak envelope power limited to specified power.

NOISE POWER DENSITY: Minus 70 dBm/Hz (maximum); Minus 75 dBm/Hz (typical)

HARMONIC DISTORTION: Minus 15 dBc maximum; Minus 20 dBc typical

PRIMARY POWER: 190-260 VAC, 50/60 Hz single phase, 0.8 kVA maximum

CONNECTORS:

RF input:	Type K female, rear panel
RF output:	Type WR-42 waveguide flange, rear panel
RF output sample ports:	Type K female, rear panel
GPIB:	IEEE-488, rear panel
Interlock:	DB-15 female, rear panel

COOLING: Forced air (self contained fans), air entry and exit in rear

TEMPERATURE: 0 to 45°C operating

HUMIDITY: Up to 95% (without condensation)

WEIGHT (approximate): 36 kg, 80 lbs

SIZE (W x H x D): 50.3 x 16.5 x 68.6 cm, 19.8 x 6.5 x 27 in.

EXPORT CLASSIFICATION: EAR99

Model Configurations

E **Package Alternatives.** May select an alternative from the following **[E1C or (E1C and E2S) and/or E3H]:**

E1C **Cabinet**: Without outer enclosure, size 49 x 14.6 (3U) x 68.6 cm, 19 x 5.75 (3U) x 27 in., Subtract approximately 6 kg, 15 lbs, for removal of outer enclosure.

E2S **Slides**: slides installed, add approximately 5 lbs, 2 kg.

E3H **Handles**: Front handles installed.

S **May select** a special feature (extra cost) from the following [S1V]:

S1V **Video Pulse Capability** to offer blanking for use for noise quieting.

S1V, Video Pulse Capability

Pulse Width: 0.1 microseconds min
Pulse Rate (PRF): 10 kHz max
Duty Cycle: Some restrictions apply. Contact AR with application requirements.
RF Rise and Fall: 100 ns max (10% to 90%)
Delay: 350 ns max from pulse input to RF90%
Pulse width distortion: ±150 ns max (50% points of output pulse width compared to 50% points of input pulse width)
Noise Power Density, (pulse off): Minus 140 dBm/Hz (typical)
Pulse Off Isolation: 80 dB minimum, 90 dB typical
Pulse Input: TTL Level, 50 Ohm nominal termination, high level enables RF when video pulsing mode is selected.
Connector, Video: BNC female, rear panel

	Features	
Model Number	E	S
130T18G26z5B	Base model	–
M1	E1C	–
M2	E3H	–
M3	E1C & E3H	–
M4	E1C & E2S	–
M5	E1C & E2S & E3H	–
M6	–	S1V
M7	E1C & E2S & E3H	S1V

Model number example: Model 30T18G26z5BM2 would have option E3H front handles installed.