40T26G40A

- M1–M13
- 40 Watts CW
- 26.5GHz–40GHz

Features

The Model 40T26G40A 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 40 watts minimum at the amplifier output connector. Stated power specifications are at the fundamental frequency.

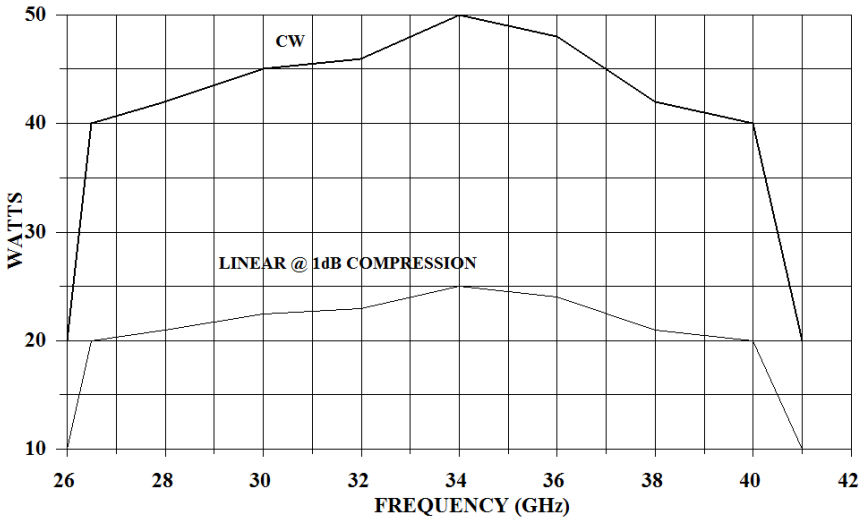
The amplifier's front panel digital display shows forward and reflected output plus extensive system status information accessed through a series of menus via soft keys. Status indicators include power on, warm-up, standby, operate, faults, excess reflected power warning and remote. Standard features include a built-in IEEE-488 (GPIB) interface, 0dBm input, VSWR protection, gain control, 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, this unit is designed for benchtop use but can be removed from the cabinet for rack mounting. The Model 40T26G40A 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. These 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.

Refer to Model Configuration Chart for alternative configurations and special features.

40T26G40A TYPICAL POWER OUTPUT



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Specifications

POWER (fundamental), CW, @ OUTPUT CONNECTOR: Nominal, 45 watts; Minimum, 40 watts;
Linear @ 1dB Compression 10 watts minimum

FLATNESS: ± 8 dB

FREQUENCY RESPONSE: 26.5–40 GHz instantaneously

INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum

GAIN (at maximum setting): 46 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 typical

MISMATCH TOLERANCE: Output power foldback protection at reflected power exceeding 10 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.

VIDEO PULSE CAPABILITY (S8V OPTION)
Pulse Width: 0.1 microseconds min.
Pulse Rate (PRF): 10 kHz max
RF Rise and Fall: 30 ns max. (10% to 90%)
Delay: 300 ns max. (pulse input to 90% RF)
PW Distortion: ± 30 ns max.

NOISE POWER DENSITY: Minus 60 dBm/Hz maximum); Minus 70 dBm/Hz (typical)

HARMONIC DISTORTION: Minus 15 dBc maximum

PRIMARY POWER: See Model Configurations

CONNECTORS:

RF input:	Type K female, rear panel
RF output	Type WR-28 waveguide flange, rear panel
RF output sample port	Type K female, rear panel
GPIB	IEEE-488, rear panel
Interlock	DB-15 female, rear panel
Video Pulse Input (S8V Option):	Type BNC female, rear panel

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

WEIGHT: 30 kg, 65 lbs

SIZE (WxHxD): 50.3 x 16.5 x 68.6 cm, 19.8 x 6.5 x 27 in

EXPORT CLASSIFICATION: EAR99

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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 for rack mounting, size (W x H x D) 48.3 x 13.3 (3U) x 68.6 cm, 19.0 x 5.25 (3U) x 27 in, Subtract approximately 7 kg, 15 lbs, for removal of outer enclosure.

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

E3H **Handles**: Front pull handles installed.

P **Primary Power** must select one primary power from the following options [P1 or P2]:

P1 **99-260 VAC**, 50/60 Hz, single phase, 850VA max.

P2 **400V Europe 360-435 VAC**, 3 phase, WYE (5 wire) 50/60 Hz, 850 VA max. CE marked to comply with EMC European Directive 89/336/EEC for operation inside a shielded room.

S **Special Features:** May select a special feature (extra cost) from the following [(S1R or S3F) and/or S2F and/or S5F and/or S4F]:

S1R **Reflected Power Port**: Type K female connector on rear panel. Forward and reflected sample port calibration data supplied on disk in Excel format at 51 points, evenly spaced over specified frequency response.

S2F **Flatness**: Flatness ± 6 dB max at rated power.

S3F **Reflected power port**: type K female connector on front panel. Forward and reflected sample port calibration data supplied on disk in Excel format at 51 points, evenly spaced over specified frequency response.

S4F **RF input connector**: On front panel, not on rear panel.

S5F **Forward output sample port**: On front panel, not on rear panel.

S6F **RF output connector**: on front panel.

S7E **Ethernet Remote Interface:** removes IEEE-488 interface; RJ-45 connector on rear panel.

S8V **Video Pulse Capability**

	Features		
Model Number	**E**	**P**	**S**
40T26G40A	Base model	P1	–
M1	E1C	P1	–
M2	E1C & E2S & E3H	P1	–
M3	See individual Specification Sheet		
M4	E1C	P1	S2F
M5	-	P1	S1R
M6	E1C	P1	S1R
M7	E1C & E2S & E3H	P1	S1R
M8	E3H	P1	S3F, S4F, S5F
M9	E1C & E2S & E3H	P2	S3F, S5F, S6F
M10	E1C & E2S	P1	S1R, S2F
M11	E3H	P1	S2F
M12	E1C, E3H	P1	S7E, S1R, S8V
M13	–	P1	S1R, S2F, S8V

Example: Model number example: Model 40T26G40AM1 would have option E1C, no outer enclosure.