Model 40T26G40A
M1 through M8
40 Watts CW
26.5GHz–40GHz

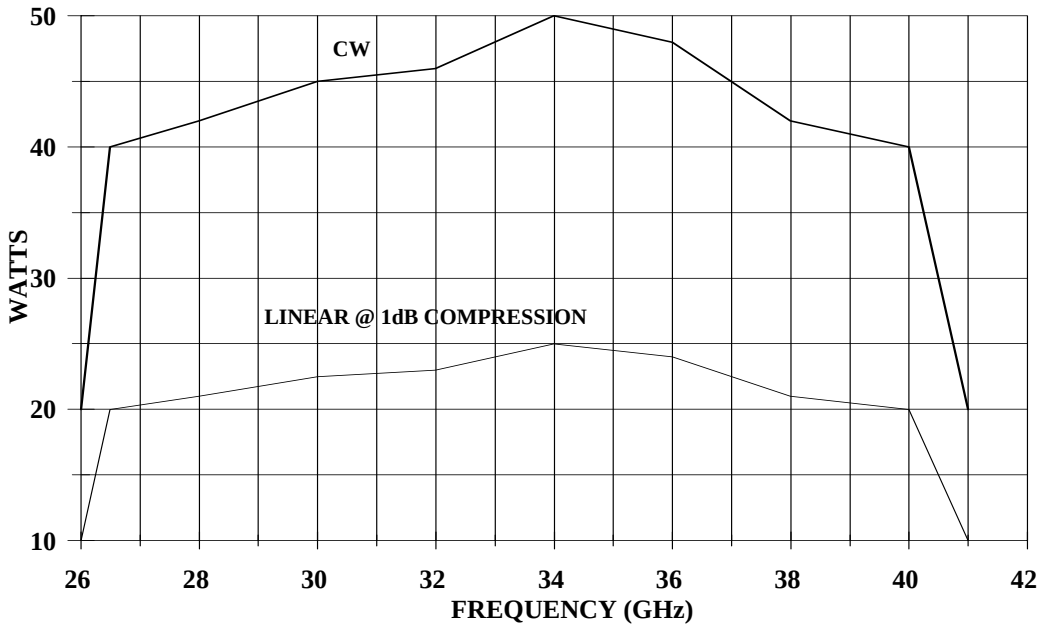
The Model 40T26G40A is a self contained, forced air cooled, broadband traveling wave tube (TWT) microwave amplifier designed for applications where wide instantaneous bandwidth, high gain and moderate power output are required. A reliable TWT provides a conservative 40 watts minimum at the amplifier 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.

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

40T26G40A TYPICAL POWER OUTPUT



SPECIFICATIONS, 40T26G40A

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.

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

HARMONIC DISTORTION ..... Minus 20 dBc maximum
Minus 28 dBc typical

PRIMARY POWER ..... 99-260 VAC
50/60 Hz single phase
850 VA maximum

CONNECTORS
- RF input ..... Type K female on rear panel
- RF output ..... Type WR-28 waveguide flange on rear panel
- RF output sample port ..... Type K female on rear panel
- GPIB ..... IEEE-488 on rear panel
- Interlock ..... DB-15 female on 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

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.

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 ± 4 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.

Model Number	Features	
	E	S
40T26G40A	Base model	–
M1	E1C	–
M2	E1C & E2S & E3H	–
M3	See individual Specification Sheet	
M4	E1C	S2F
M5	-	S1R
M6	E1C	S1R
M7	E1C & E2S & E3H	S1R
M8	E3H	S3F, S4F, S5F

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