

COMB GENERATORS

with Integrated Input RF Amplifier

OMNIYIG
COMB GENERATORS

LIMITERS,
DETECTORS &
COMB GENERATORS



FEATURES

- Low Harmonic Conversion Loss
- Spectrum Purity
- Repeatable RF Performance from Unit to Unit
- Small Packaging
- Input Matched for Input Broad Band Tuning
- Internal Self-biasing and DC Return
- Low Input RF Power

APPLICATIONS

- Wireless Systems
- Spectrum Analyzers
- Sweep Generators
- ECM Receivers
- Frequency Synthesizers
- Broadband Test Equipment
- Telemetry
- Communication Equipment

DESCRIPTION

OMNIYIG's newest Comb Generator design is integrated with an input RF power amplifier. The RF input power requirement for each Comb Generator is +10 dBm and is matched to a 50-ohm impedance with an integrated wideband transformer circuit, in which the device can accept a tunable input frequency.

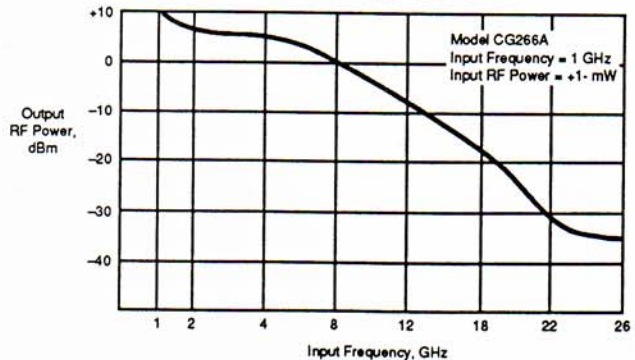
ENVIRONMENTAL

Maximum Power Rating 1 watt
 Operating Temperature -55°C to +75°C
 Storage Temperature -65°C to +110°C
 Vibration 20 G 100 to 2000 Hz
 Shock 50 G 11 mSec

ELECTRICAL CHARACTERISTICS

1. Power variation vs. temperature is typically ± 1 dB over the temperature range -55°C to +75°C.
2. Input power +10 \pm 1 dBm at 25°C.
3. Input VSWR: The input VSWR as an option can be held to 2:1 up to 7% of the bandwidth and 3:1 up to 20% of the bandwidth.
4. Fundamental feedthrough +2 dBm.
5. Bias: The comb generator requires no external biasing. Each generator is provided with internal integrated proportional biasing.
6. External supply voltage for amplifiers +15 V at 250 mA max. Other voltages are available.

ACTUAL COMB GENERATOR RF OUTPUT PERFORMANCE MODEL CG266A

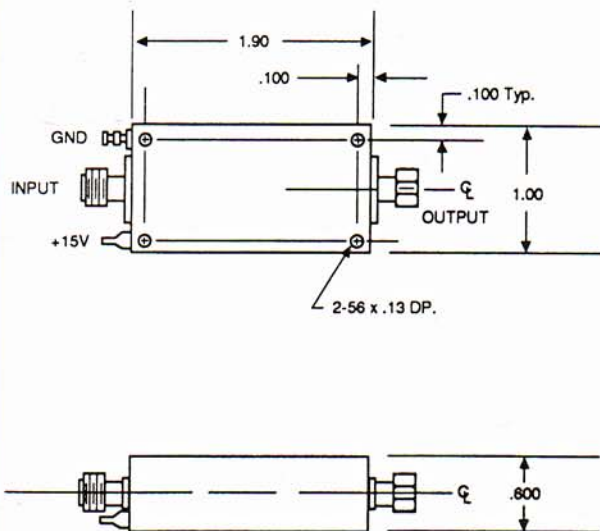


SPECIFICATIONS @ 25°C

INPUT FREQUENCY (MHz)	OMNIYIG MODEL NO.	OUTPUT FREQ. RANGE (GHz)	INPUT ¹ VSWR (Max)	MIN. RF OUTPUT POWER ² (MHz)	OUTLINE DRAWING
100 – 200 ³	CG252A	0.1 – 12.0	2.0:1	-24 (at 12 GHz)	82634
100	CG253A	1.0 – 18.0	1.8:1	-38	82634
100	CG254A	1.0 – 26.5	1.8:1	-50	82634
200	CG255A	0.2 – 12.4	1.8:1	-25	82634
200	CG256A	1.0 – 18.0	1.8:1	-35	82634
200	CG257A	1.0 – 26.5	1.8:1	-45	82634
250	CG258A	0.5 – 12.0	1.8:1	-18	82634
250	CG259A	0.5 – 18.0	1.8:1	-28	82634
250	CG260A	1.0 – 26.5	1.8:1	-40	82634
500	CG261A	1.0 – 12.0	1.8:1	-13	82634
500	CG262A	1.0 – 18.0	1.8:1	-18	82634
500	CG263A	1.0 – 26.5	1.8:1	-38	82634
1000 – 2000 ³	CG264A	1.0 – 12.0	1.8:1	-13	82629
1000	CG265A	1.0 – 18.0	1.8:1	-18	82629
1000	CG266A	2.0 – 26.0	1.8:1	-33	82629
1000	CG267A	2.0 – 40.0	1.8:1	-45	82629
2000	CG268A	2.0 – 18.0	1.8:1	-10	82629
2000	CG269A	2.0 – 26.0	1.8:1	-20	82629
2000	CG270A	2.0 – 40.0	1.8:1	-35	82629

- Notes:**
- 1) Internal DC return is provided for all units
 - 2) Input RF power +10 ±1 dBm
 - 3) Variable input frequency

OUTLINE 82634



OUTLINE 82629

