

Nominal frequency (f0)**10 MHz****Frequency stabilities**

Parameter	Frequency stability	Operating temp. range
vs. operating temp. range (df/f@25 °C)	-15 to 15 ppb -10 to 10 ppb	-40 ... 70 °C -20 ... 70 °C
Parameter	Value	Condition
initial tolerance (df/f0)	-95 to 95 ppb	@Vc = 2.5 V; 25 °C
vs. supply voltage change (df/f)	-1 to 1 ppb	static; 5 V $\pm$ 5 %
vs. load change (df/f)	-1 to 1 ppb	static; Load $\pm$ 10 %
vs. aging / daily (df/f)	$\leq \pm 0.5$ ppb	after 30 days ; @ 25 °C
vs. aging / month (df/f)	$\leq \pm 20$ ppb	after 30 days ; @ 25 °C
vs. aging / year (df/f)	$\leq \pm 50$ ppb	after 30 days ; @ 25 °C
vs. aging / 10 years (df/f)	$\leq \pm 0.4$ ppm	after 30 days ; @ 25 °C
± 200 ppb within 90 days after shipment with Vc=2.5V @ 15 min. warm up time ref. to exactly 10MHz		

Frequency tuning

Parameter	Value	Condition
Electrical frequency control (EFC) (df/f0)	-1 to -0.5 ppm 0.5 to 1 ppm	ext. tuning voltage @ 0 V ext. tuning voltage @ 5 V
Linearity	< 10 %	
Frequency control input impedance	> 100 kOhm	
Modulation bandwidth	> 1000 Hz	@ -3 dB

RF output

Parameter	Value	Condition
Signal	HCMOS	
Load	50 pF ± 10 %	
Fan out	10	
Rise Time	< 10 ns	@ 0.5 to 4.5 V
Fall Time	< 10 ns	@ 4.5 to 0.5 V
Duty cycle	40 / 60 %	@ 2.5 V
V Low	$x < 0.3$ V	
V High	$x > 4.5$ V	

Supply voltage

Parameter	Value	Condition
Supply voltage (Vs)	5 V ± 5 %	
Current consumption steady state	< 250 mA	@ Vsnom & 25 °C
Current consumption during warm up	< 600 mA	@ Vs
after 48h oper. +Vc=2.5V Retrace after 24h power off and 1hour power on: ± 10 ppb		

Reference Voltage output

Parameter	Value	Condition
Reference Voltage	4V ± 5 %	

Additional Parameters

Parameter	Value	Condition
Phase Noise	< -80 dBc/Hz	1 Hz
	< -120 dBc/Hz	10 Hz
	< -140 dBc/Hz	100 Hz
	< -145 dBc/Hz	1 kHz
	< -150 dBc/Hz	10 kHz
Short term stability	$\leq \pm 50.0$ E-12	1 sec
Warm-up time	< 15 min	@ 25 °C to final frequency
Additional information		
warm up time: within ± 10 ppb refer. to freq. after 1 hour power on		
Processing & Packing	handling&processing note	

Additional environmental conditions

Vibration stationary: 9..200Hz, 2m/s, sinusoidal, time of occurrence: 1% non station. vibrat. incl. shock: 250m/s ² (storage: 100m/s ²), 6ms
Shock storage + transp.: 250m/s ² storage: free fall 1m on hardwood plate, steady state acceler. 20m/s ²
Damp heat operation: -40..+75°C, 5..95% RH, absol. humid.: 1..29g/cubic meter air pressure: 70..106kPa
Tensile strength of leads DIN IEC 68-2-21, Test Ua1
Flexibility of leads DIN IEC 68-2-21, Test Ub
Sealing test A hermetisch dicht (hermetically sealed)
Solderability DIN IEC 68-2-20, Test Ta 100% RoHS compliant
Solvent resistance DIN IEC 68-2-45, Test xA

Absolute Maximum Ratings

Parameter	Min	Typ	Max	Units	Condition
Supply voltage (Vs)	-0.5		7	V	
Operable temperature range	-40		85	°C	
Storage temperature range	-55		105	°C	

Enclosure

Height 18.2 mm

G157

The technical drawing consists of three views of the G157 component:

- Top View:** Shows a rectangular component with dimensions 38.1 max. (width) and 27.2 max. (height). Pin locations are marked with circles and numbers 1 through 5. Horizontal dimensions from the left edge: 25.4 ±0.2 to pin 3, 17.78 ±0.5 to pin 4. Vertical dimensions from the bottom edge: 15.24 ±0.5 to pin 4, 17.8 ±0.2 to pin 5.
- Side View:** Shows the component's profile with a total height H and a mounting tab height of 4.5 min. The mounting tab has a width of 0.8 max. and a hole diameter of Ø0.8.
- Front View:** Shows a square-like footprint with a width of 9.0 and a height of 3.0. A small circle is labeled "option".

all units in mm

Pin Connections

- Pin 1: Vc (control voltage)
- Pin 2: Vref (reference voltage)
- Pin 3: Vs (supply voltage)
- Pin 4: RF-Output
- Pin 5: GND(Case)

Marking

C4600A1-0080
 10,000 MHz
 Ser.Nr. AYYWW *
 * pin-1 marking

Standard shipping method

10 * 3 array / 30 units per tray

Notes:

Unless otherwise stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C).
Subject to technical modification.

Mouser Electronics

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