

- Key Features -

- Multiple Spectrum Analyzer Support
- >80dB Dynamic Range
- Optional 12GHz Band 3
- Standalone TG Source, no PC needed
- USB RF Signal Generator Mode
- USB Powered
- Competitive Price
- Compact Size

TG6000

TRACKING RF SIGNAL GENERATOR



New *Fifth* Generation Model

TG6000, A Generic Tracking Signal Generator

The TG6000 enables users to generate a tracking signal >6GHz using their Spectrum Analyzer (SA). Preprogrammed settings support a large number of existing SA's. In addition it is possible for the user to configure the instrument for other analyzers using the provided PC software and USB interface. The TG6000 covers the fundamental band (Band0) and Band1 of the users SA.

Ease of Use

The user connects the Spectrum Analyzers 1st LO and its 10MHz to the TG6000. Selection of SA Model is done by rear panel rotary switches. A TG signal is now active at the TG OUT port of the instrument. With the users DUT inserted between the TG output and the SA input the DUT frequency response is automatically traced on the users SA display. **No PC is needed to operate the TG6000 as a tracking signal source.**

Signal Generator Operation

The TG6000 can operate as a broad band RF signal generator with the output frequency controlled via rear panel USB port. The SG output is fully synthesized and locked to the applied or internal 10Mhz reference. A provided Software application allows the user to set the frequency of the SG OUT port. Frequency output covers from 25MHz to 6.0 GHz.

The USB port is configured as a virtual COM port which supports industry standard SCPI commands for frequency and level.

DS Instruments



SPECIFICATIONS

Parameter	Min	Max	Typ	Units
TG Output Frequency Range	1	>6000		MHz
TG Band 3 Range (TG12000)	5.8	12000		MHz
TG Output Power	-9	+3	-3	dBm
TG Output Flatness			+/- 3	dB
TG Dynamic Range, 3KHz RBW			>80	dB
SG Output Frequency Range	25	6000		MHz
SG Output Power @ Max Setting	+9	+16	+12	dBm
SG Step Size	0.5	4.00		KHz
1 st LO Frequency Range (SA Input)	1	7		GHz
1 st LO Power from User's SA	-5	+15	5	dBm
10MHz Reference Input power Range	-15	+15	0	dBm
DC Power Input thru USB Port	4.75	5.35	5.0	Vdc
SMA port return loss	10		>12	dB
DC current requirement – USB		600	400	mA
Internal Reference TCXO Stability			±2.5	PPM
Device Temperature Rating	-30	50	25	Deg. C
Phase Noise @ 6000MHz, 10KHz Offset			-72	dBc
@ 2400MHz, 10KHz Offset			-85	dBc
@ 900MHz, 10KHz Offset			-92	dBc

TG6000

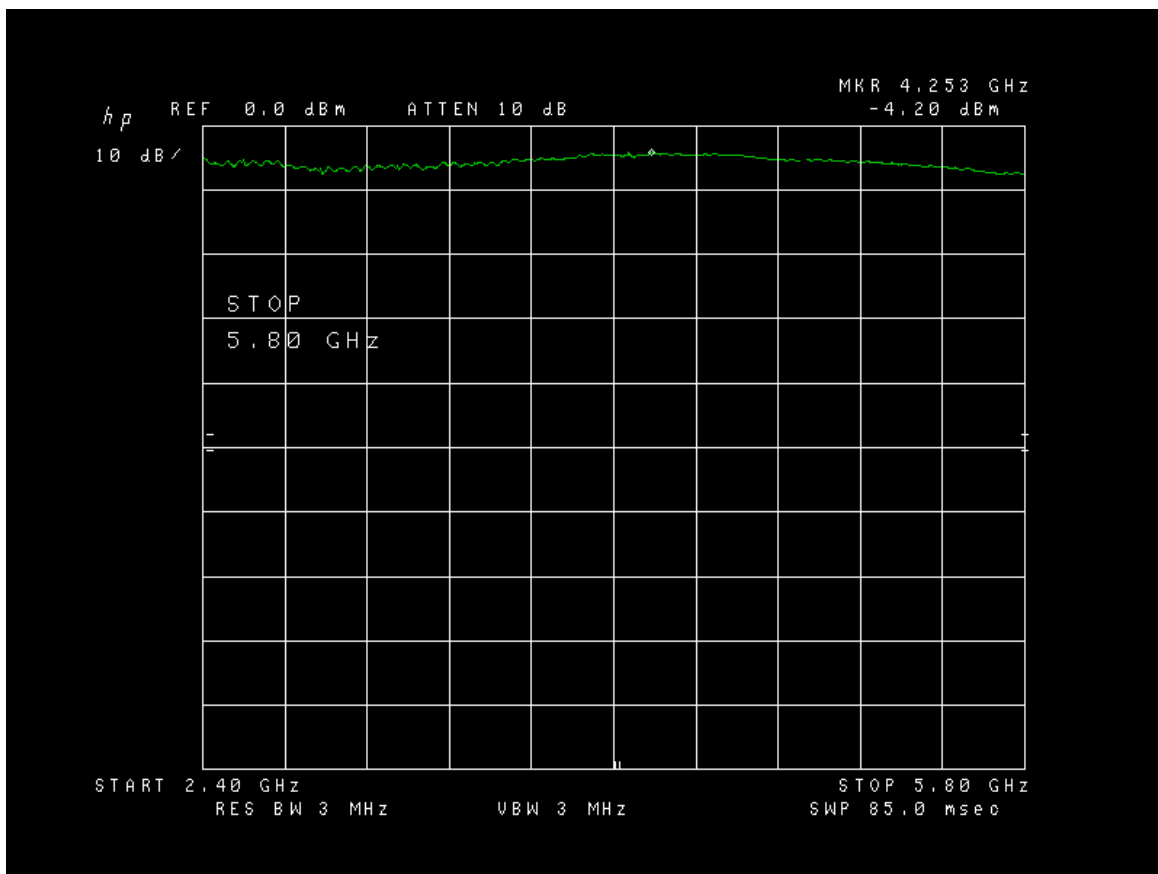
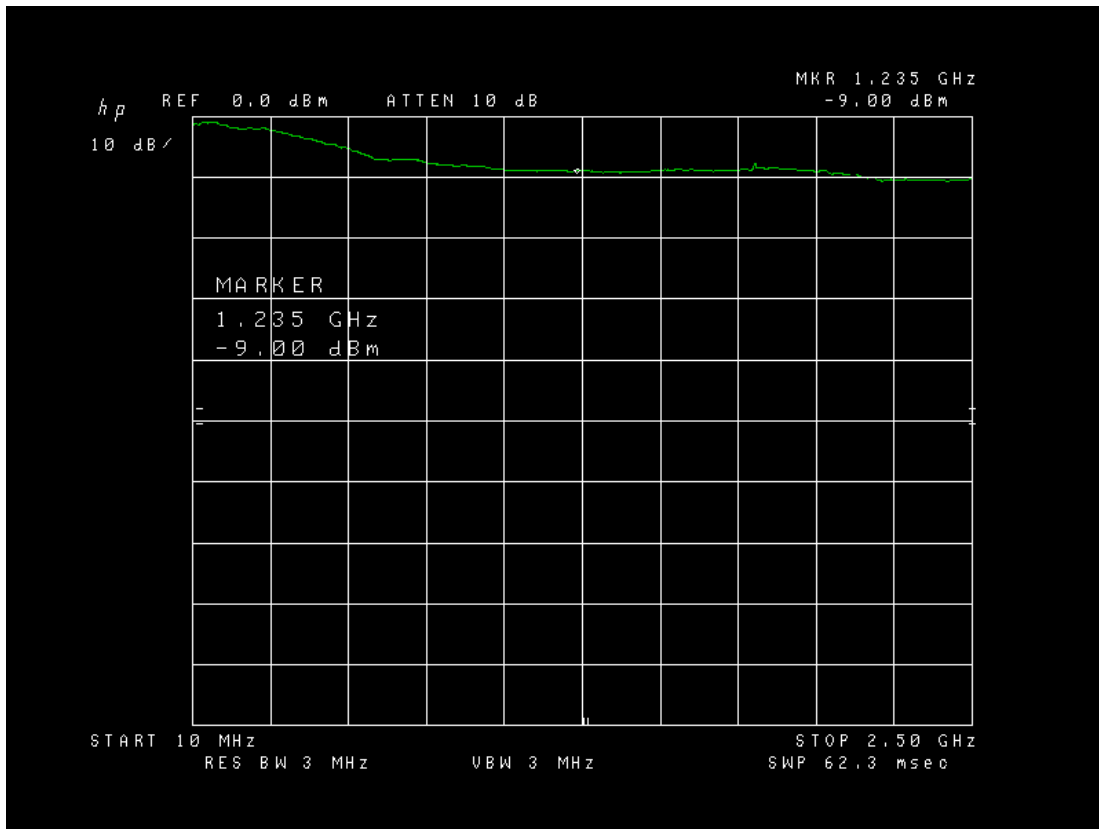
Selecting a Spectrum Analyzer



SA Model	SETUP
Set by USB	0
HP 8568A/B	1
HP 8566A/B	2
HP 8560	3
HP 8561	4
HP 8562	4
HP 8563	4
HP 8564	4
HP 8590	5
HP 8591	5
HP 8592	6
HP 8593	6
HP 8594	6
HP 8595	6
HP 8596	6
Advantest R3463	7
Advantest R3465	7
HP 8569	8

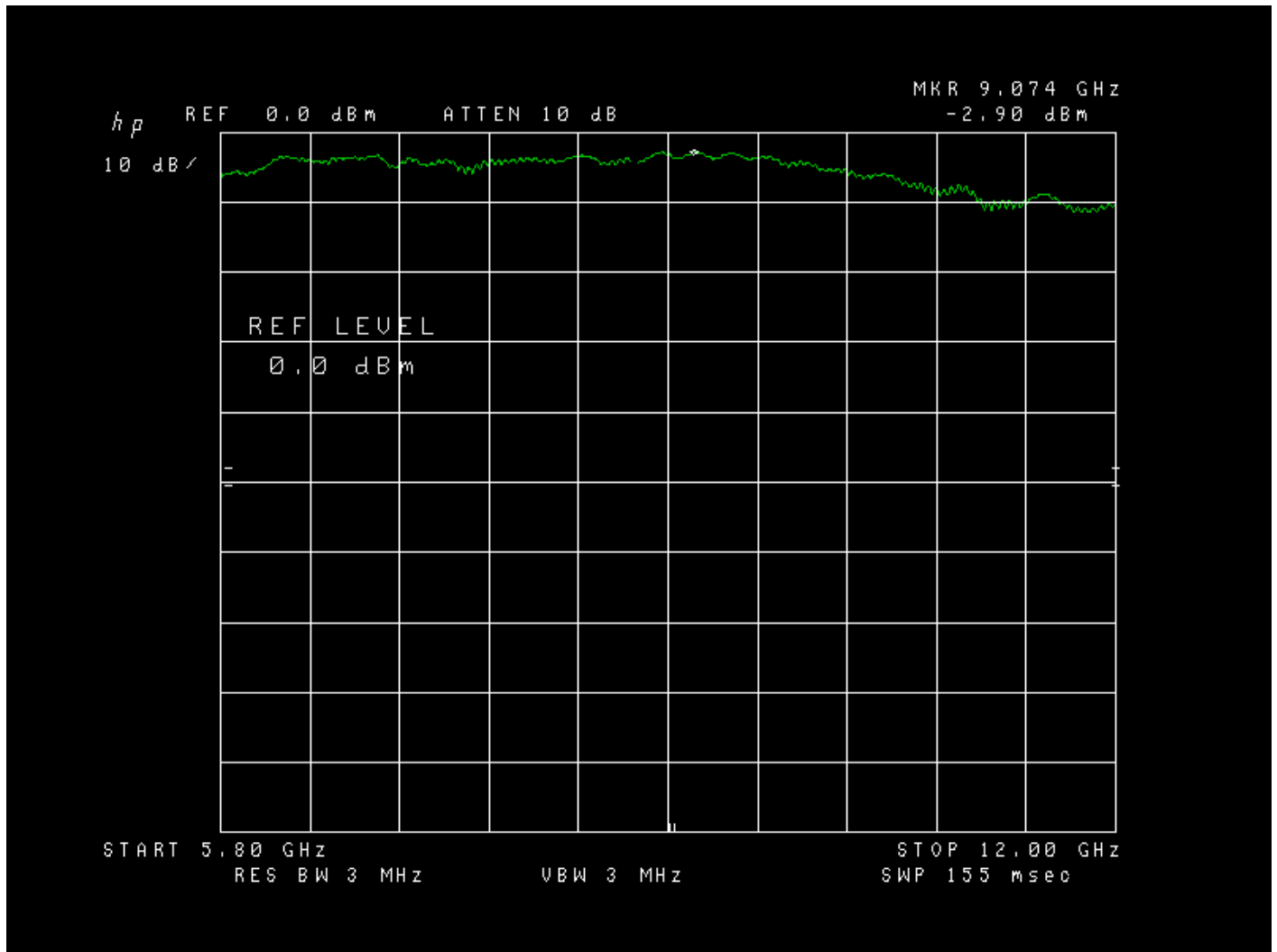
TG6000

Typical TG Signals (Low and High Band)



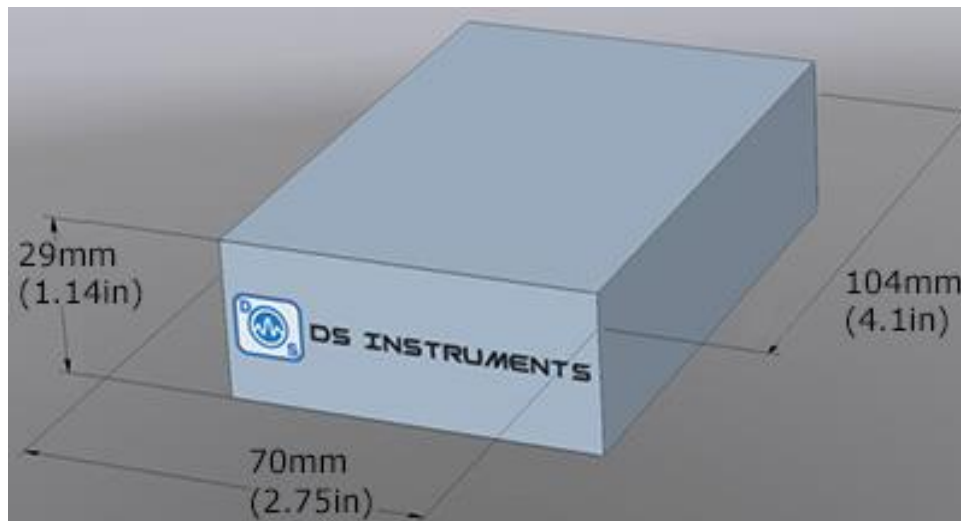
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Typical TG Signals (Band 3 – TG12000)

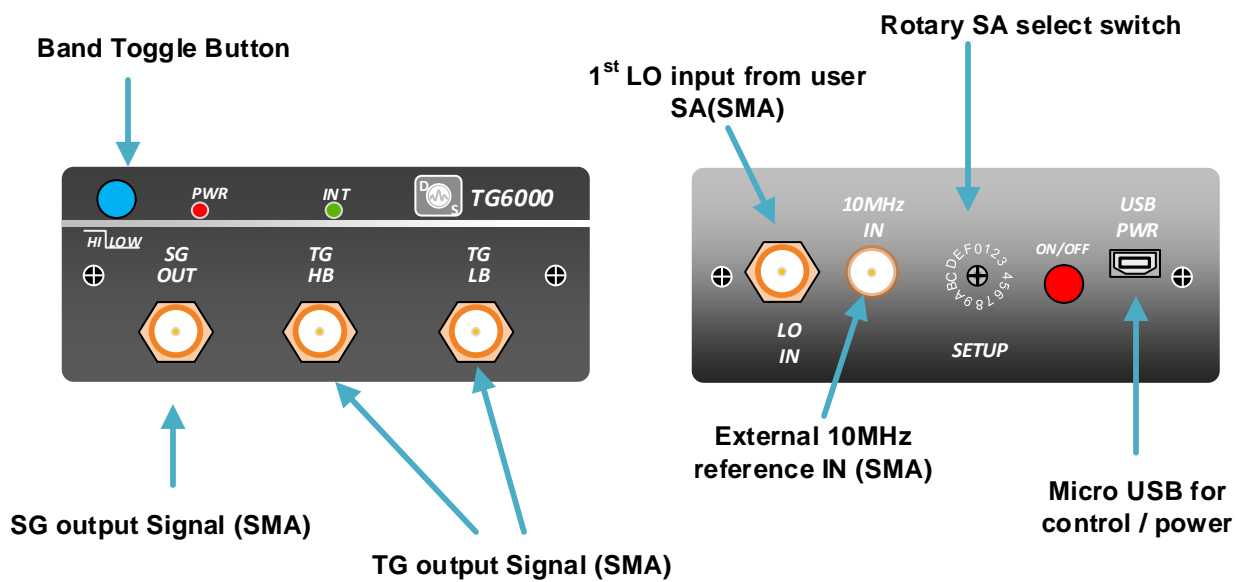


TG6000

TG6000 Case Dimensions

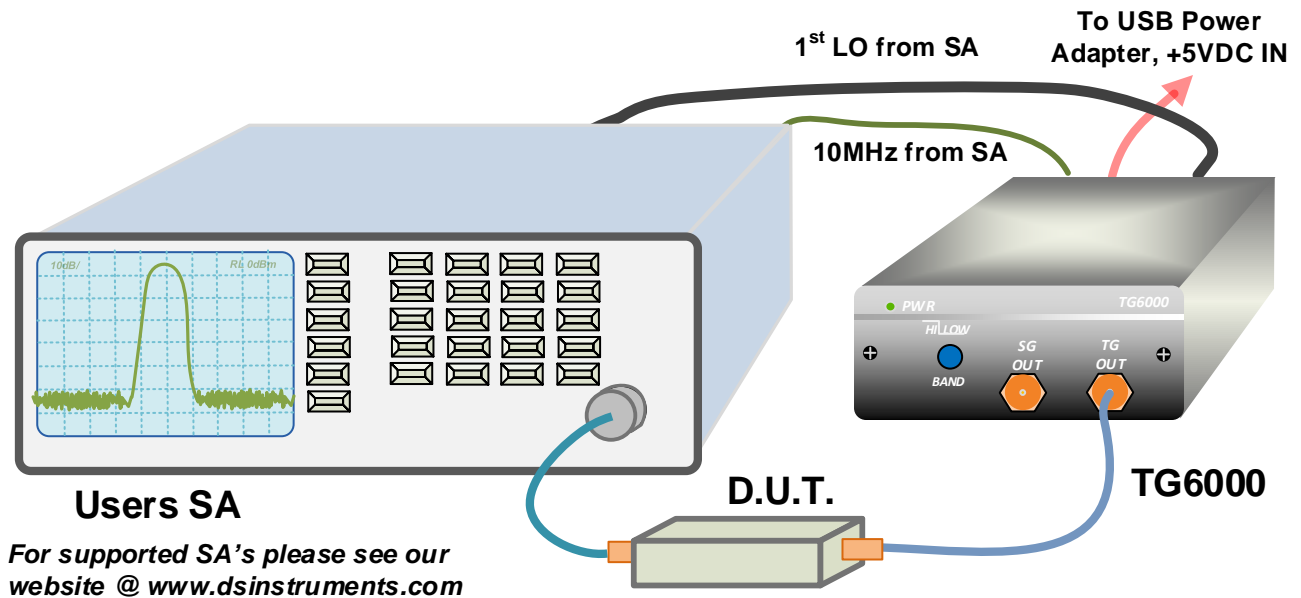


TG6000 Front and Rear Panel Features



TG6000

Typical User connections



Device Images



TG6000

SCPI Serial Command List

DS Instruments - Signal Generator SCPI Command List (REV 7+)

Command	Example 1	Example 2	Description
FREQ:CW	FREQ:CW 400MHZ	FREQ:CW 3.33GHZ	Set output Frequency
FREQ:CW ?			Return output frequency
OUTP:STAT	OUTP:STAT ON	OUTP:STAT OFF	Turn on or off the RF output
OUTP:STAT ?			Return output status
BAND	BAND 1	BAND 2	Change TG band
FREQ:START	FREQ:START 1GHZ	FREQ:START 99MHZ	Sweep start frequency
LIST:DIR	LIST:DIR UP	LIST:DIR DOWN	Sweep direction
FREQ:STOP	FREQ:STOP 2GHZ	FREQ:STOP 999MHZ	Sweep stop frequency
SWE:POINTS	SWE:POINTS 10	SWE:POINTS 900	Sweep point count
SWE:DWELL	SWE:DWELL 25	SWE:DWELL 1000	Sweep dwell time in milliseconds
INIT:IMM			Start the sweep now
INIT:CONT	INIT:CONT 0	INIT:CONT 1	Sweep continuous mode or single
ABORT			Stop the sweep now
SWE:ACTIVE?			Is the device sweeping now
*IDN?			Return the SCPI identification string
*PING?			returns "PONG!" if device is responding
SYST:ERR?			Return any pending errors
*CLS			Clear errors and events
*RST			Reset unit now
*INTREF?			Is the internal reference enabled?
*EXTREF?			Is an external reference signal detected?
*INTERNALREF 1			Set reference to internal
*INTERNALREF 0			Set reference to external (LD & LDQ only)
*INTERNALREF A			Autodetect reference at power-on (LD & LDQ)
*SYSVOLTS?			Return internal USB voltage
*UNITNAME	*UNITNAME Bob	*UNITNAME DEV-34	Set a unique name in flash memory
*UNITNAME?			Return this device's name
*BUZZER	*BUZZER ON	*BUZZER OFF	Mute the buzzer

Command terminator is LINEFEED ("\n")

Baud rate = 115200

TG3000 – TG12000

Ordering Information

TG3000 – 1 to 3000MHz TG Output	\$699.00
TG6000 - 1 to 6000MHz TG Output	\$819.00
TG12000 – 1 to 12000MHz TG Output	\$999.00

Contact Information

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