VDI Standard Signal Generator Extension Module Specifications

Product Name	WR28SGX	WR19SGX	WR15SGX	WR15SGX-SE	WR12SGX-HP	WR12SGX	WR10SGX	WR9.0SGX	WR8.0SGX
RF Frequency Band (GHz)	26.5-40	40-60	50-75	50-75	60-90	60-90	75-110	82-125	90-140
Output Flange (UG-387/U-M)	WR-28	WR-19	WR-15	WR-15	WR-12	WR-12	WR-10	WR-9.0	WR-8.0
Output Power (Typical / Minimum)	20dBm typ.	19dBm typ.	20dBm / 17dBm	19dBm / 16dBm	19dBm / 15dBm	16dBm / 13dBm	14dBm / 10dBm	14dBm / 10dBm	9dBm / 6dBm
Multiplication Factors (Low / High)*	4 / 2	4 / 2	4 / 2	4 / 2	6 / 2	6 / 3	6 / 3	9 / 3	9 / 3
Low Frequency RF Input (GHz)	6.63-10	10-15	12.5-18.75	12.5-18.75	10-15	10-15	12.5-18.33	9.11-13.89	10-15.56
High Frequency RF Input (GHz)	13.25-20	20-30	25-37.5	25-37.5	30-45	20-30	25-36.67	27.33-41.67	30-46.67

Product Name	WR6.5SGX	WR5.1SGX	WR4.3SGX	WR3.4SGX	WR2.8SGX	WR2.2SGX	WR1.5SGX	WR1.0SGX	WR0.65SGX
RF Frequency Band (GHz)	110-170	140-220	170-260	220-330	260-400	330-500	500-750	750-1100	1100-1500
Output Flange (UG-387/U-M)	WR-6.5	WR-5.1	WR-4.3	WR-3.4	WR-2.8	WR-2.2	WR-1.5	WR-1.0	WR-0.65
Output Power (Typical / Minimum)	8dBm / 3dBm	4dBm / 0dBm	2dBm / -3dBm	-2dBm / -6dBm	-6dBm / -12dBm	-10dBm / -16dBm	-21dBm / -27dBm	-23dBm / -33dBm	-25dBm typ.
Multiplication Factors (Low / High)*	12 / 4	12 / 6	18 / 6	18 / 9	24 / 12	48 / 12	54 / 18	81 / 27	108 / 54
Low Frequency RF Input (GHz)	9.17-14.17	11.67-18.33	9.44-14.44	12.22-18.33	10.83-16.67	6.88-10.42	9.26-13.89	9.26-13.58	10.19-13.89
High Frequency RF Input (GHz)	27.5-42.5	23.33-36.67	28.33-43.33	24.44-36.67	21.67-33.33	27.5-41.67	27.78-41.67	27.78-40.74	20.37-27.78

*See Figure 1 for dual RF input mode configuration.

SGX Option List:

- Micrometer Driven Attenuator (~0-30dB)
- Output Horn Antenna
- Waveguide Test Port Extensions (1" and 2" available)
- Increased Amplitude Modulation Rate (up to ~300MHz) - ON/OFF
- Voltage Bias Port (on Front Panel) - for external multiplier connections

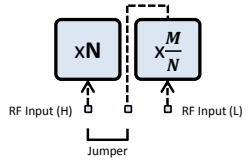

Figure 1: Block diagram of dual input mode is shown. M is the multiplication factor for Low Frequency Mode. N is the multiplication factor for High Frequency Mode.

General Notes:

- VDI SGXs include a single-volt DC Power Supply.
- Turn-key, sweepable system, includes TTL modulation (ON/OFF up to ~kHz) and User Controlled Attenuation (UCA), 0-5V, both BNC.
- Unwanted harmonic content is better than -20dBc.
- SGXs are configured to allow input signals in two bands. Low Frequency Operation: <20GHz, ~10dBm, 2.9mm(f). High Frequency Operation: removal of 'jumper' allows higher frequency input, ~0dBm, 2.4mm(f).
- Higher frequency input reduces unwanted harmonic signals within the band, and is preferred.
- SGX modules can be driven by any source that supplies the required frequency band and power.
- The stability of the input is degraded by the harmonic factor (N), and the phase noise by 20log(N).

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