



VDI Mini Signal Generator Extension Module Specifications

Product Name	WR28SGX-M	WR19SGX-M	WR15SGX-M	WR12SGX-M	WR10SGX-M	WR9.0SGX-M	WR8.0SGX-M	WR6.5SGX-M
RF Frequency Band (GHz)	26.5-40	40-60	50-75	60-90	75-110	82-125	90-140	110-170
Output Flange (UG-387/U-M)	WR-28	WR-19	WR-15	WR-12	WR-10	WR-9.0	WR-8.0	WR-6.5
Output Power (Typical / Minimum)	20dBm / 17dBm	19dBm / 16dBm	20dBm / 17dBm	20dBm / 17dBm	20dBm / 17dBm	20dBm / 17dBm	19dBm / 13dBm	18dBm / 15dBm
Multiplication Factors (Low / High)*	4 / 2	4 / 2	6 / 3	6 / 3	6 / 3	9 / 3	12 / 6	12 / 6
Low Frequency RF Input (GHz)	6.63-10	10-15	8.33-12.5	10-15	12.5-18.33	9.11-13.89	7.5-11.67	9.17-14.17
High Frequency RF Input (GHz)	13.25-20	20-30	16.67-25	20-30	25-36.67	27.33-41.67	15-23.33	18.33-28.33

Product Name	WR5.1SGX-M	WR4.3SGX-M	WR3.4SGX-M	WM710(WR2.8)SGX-M	WM570(WR2.2)SGX-M	WM380(WR1.5)SGX-M	WM250(WR1.0)SGX-M	WM164(WR0.65)SGX-M
RF Frequency Band (GHz)	140-220	170-260	220-330	260-400	330-500	500-750	750-1100	1100-1500
Output Flange (UG-387/U-M)	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)	10dBm / 6dBm	8dBm / 3dBm	6dBm / 3dBm	5dBm / -1dBm	0dBm / -6dBm	-7dBm / -13dBm	-16dBm / -26dBm	-25dBm typ.
Multiplication Factors (Low / High)*	12 / 6	18 / 6	18 / 9	27 / 9	36 / 18	54 / 18	81 / 27	108 / 54
Low Frequency RF Input (GHz)	11.67-18.33	9.44-14.44	12.22-18.33	9.63-14.81	9.17-13.89	9.26-13.89	9.26-13.58	10.19-13.89
High Frequency RF Input (GHz)	23.33-36.67	28.33-43.33	24.44-36.67	28.89-44.44	18.33-27.78	27.78-41.67	27.78-40.74	20.37-27.78

*See Figure 1 for dual RF input mode configuration.

SGX-M Option List:

- Micrometer Driven Attenuator (~0-30dB)
- Output Horn Antenna
- Waveguide Test Port Extensions (1" and 2" available)

General Notes:

VDI SGX-Ms 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 typical.

SGX-Ms 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-M 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).

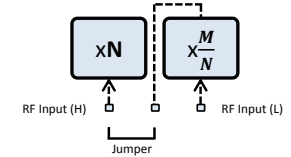


Figure 1: Block diagram of dual input mode is shown. M is the multiplication factor for Low Frequency Mode. N is the multiplication factor for High Frequency Mode.