

QFS-200-40000-1

0.2~40GHz

Features:
 * High Frequency Stability
 * Ultra Low Phase Noise

Applications:
 * Wireless
 * Transceiver
 * Laboratory Test
 * Radar

Electrical

Output Frequency:	0.2~40GHz
Step:	0.1Hz
	0.2Hz (20~40GHz)
Switching Speed:	200μS max.
Output Power:	-40~+10dBm
Power Step:	0.1dB
Output Power Accuracy:	±0.5 (0~+10dBm)
	±2.0 (-40~0dBm)
Frequency Stability:	±0.3ppm (or same as ext. reference)
Frequency Accuracy:	±0.3ppm (or same as ext. reference)
Output Spurious:	-65dBc (0.2~20GHz) max.
	-60dBc (20~40GHz) max.
Output Harmonic:	-20dBc
External Reference:	100MHz
Modulation Dept:	60dBc min.
Modulation Width:	100ns~10ms max.
Pulse Period:	500ns~10ms
Rising/Falling Edge:	30nS/50nS max.
Voltage:	220V
Impedance:	50Ω

		Output Phase Noise (dBc/Hz)				
		1GHz	5GHz	10GHz	20GHz	40GHz
Offset	Freq.					
	100Hz	-108	-98	-92	-85	-79
	1KHz	-127	-116	-112	-101	-99
	10KHz	-137	-125	-120	-114	-108
	100KHz	-137	-125	-120	-114	-108
1MHz	-137	-125	-120	-114	-108	

Mechanical

Size*1:	230*140*50mm
	9.055*5.512*1.969in
Weight:	2.9kg max.
RF Connectors:	SMA Female
Power & Control Interface:	D000-055.5*2.1mm
Control Type:	Network interface, USB, Touch screen control

[1] Exclude connectors.

Environmental

Operating Temperature:	0~+40°C
Non-operating Temperature:	-20~+55°C

Outline Drawings

To be done

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

How To Order

[QFS-200-20000-MUL-1](#) - Module, UART, Low Phase Noise

[QFS-200-40000-MUL-1](#) - Module, UART, Low Phase Noise

Customization is available upon request.

Typical Performance Curves:
40GHz Phase Noise (dBc)

R&S FSUP 50 Signal Source Analyzer				LOCKED	
Settings		Residual Noise [T1 w/o spurs]		Spur List	
Signal Frequency:	10.000000 GHz	Int PHN (100.0 .. 1.0 M)	-63.8 dBc	100.024 Hz	-57.92 dBc
Signal Level:	0.42 dBm	Residual PM	52.102 m°	150.032 Hz	-68.70 dBc
Cross Corr Mode	Harmonic 1	Residual FM	509.378 Hz	200.011 Hz	-81.29 dBc
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.0145 ps	249.937 Hz	-85.72 dBc

