QFS-50-22600-MS

0.05~22.6GHz

Features:
* High Frequency Stability
* Ultra Low Phase Noise

Applications:
* Wireless
* Transceiver
* Laboratory Test
* Radar

Electrical

Output Frequency:	0.05~22.6GHz
Step:	0.1Hz
Switching Speed:	200μS max.
	60μS max.
Output Power:	4±5dBm
Frequency Stability:	same as reference
Frequency Accuracy:	same as reference
Output Spurious:	-65dBc max.
	-20dBc max. @(11.3G~22.6GHz 1/2&3/2thHarmonic)
Output Harmonic:	-5dBc max.
External Reference:	100MHz
Reference Power:	7±3dBm
Reference Phase Noise:	-155dBc/Hz max. @1kHz
Voltage:	+12±0.5V DC
	+15V DC max.
Current:	0.5A typ.
Control Type:	SPI
Impedance:	50Ω

Output Phase Noise(dBc/Hz)

Offset \ Freq.	1GHz	5GHz	10GHz	22.6GHz
100Hz	-105	-91	-85	-79
1KHz	-127	-113	-107	-101
10KHz	-135	-122	-116	-110
100KHz	-135	-122	-116	-110
1MHz	-135	-122	-116	-110

Mechanical

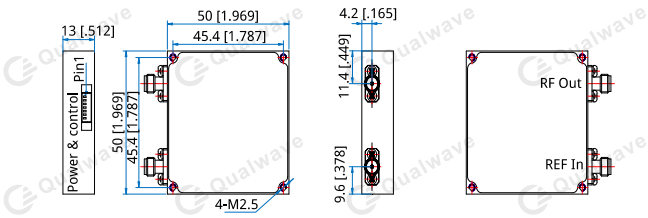
Size[*1]:	50*50*13mm
	5.752*3.74*0.827in
REF In Connectors:	SMA Female (removable)
RF 0ut Connectors:	2.92 Female (removable)
Power & Control Interface:	53261-0671-7P
Mounting:	4-M2.5 Through hole

[1] Exclude connectors.

Environmental

Operating Temperature:	-40~+70℃
Non-operating Temperature:	-55~+85℃

Outline Drawings



Unit: mm [in]
Tolerance: ±0.2mm [±0.008in]

Pin Numbering

Pin	Function
1	+12V
2	GND
3	MOSI (SPI communication interface)
4	LE (SPI communication interface)
5	MISO (SPI communication interface)
6	SCK (SPI communication interface)
7	LD (Locked: high voltage)

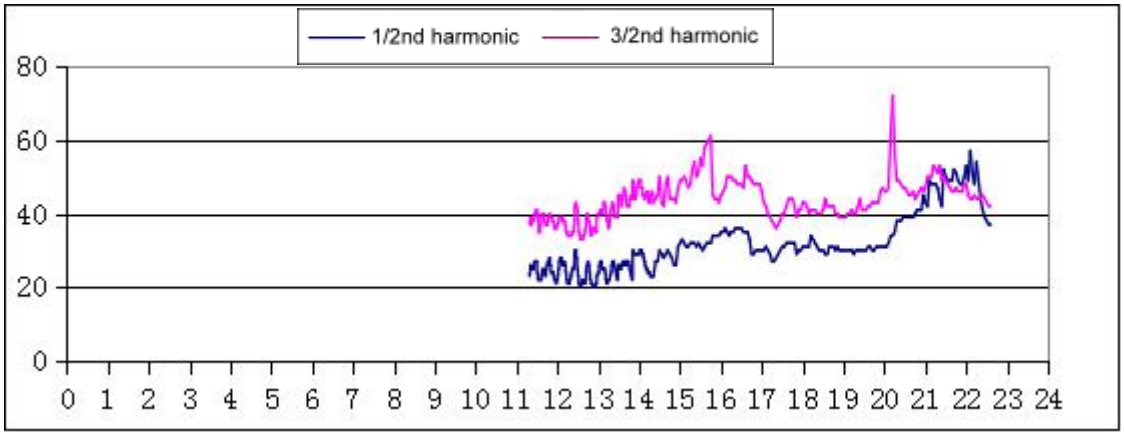
How To Order

QFS-50-22600-MS-1 - Switching Speed: 200μS max.
QFS-50-22600-MS-2 - Switching Speed: 60μS max.

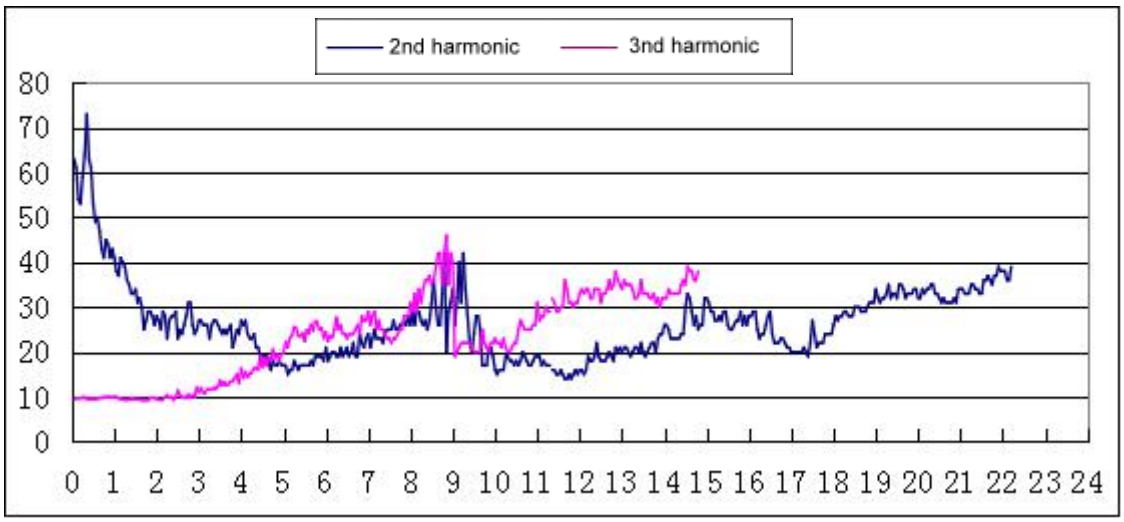
Customization is available upon request.

Typical Performance Curves:

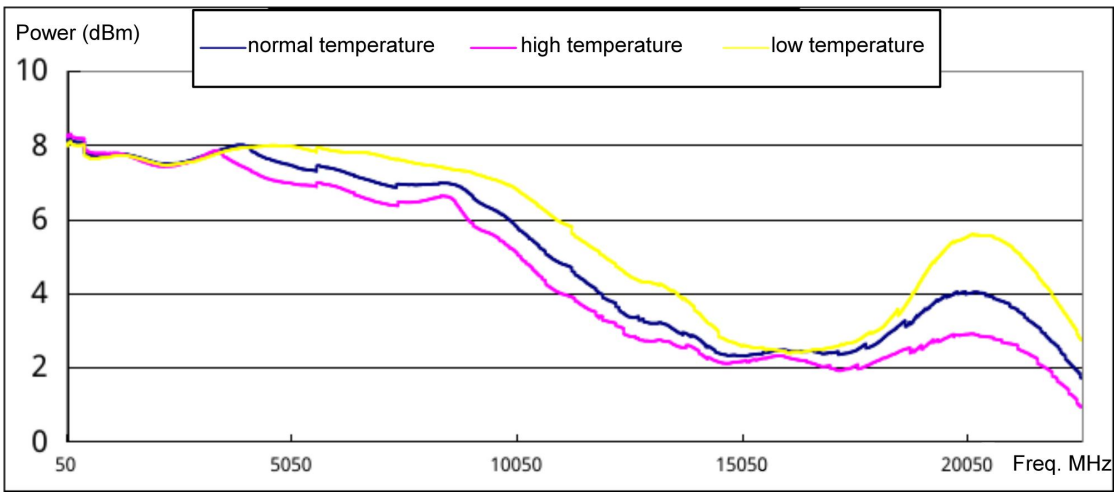
1/2&3/2nd Harmonic (dBc)



2&3nd Harmonic (dBc)



Output Power (dBm)



10GHz Phase Noise (dBc)

R&S FSUP 50 Signal Source Analyzer				LOCKED
Settings		Residual Noise [T1 w/o spurs]		Phase Detector +0 dB
Signal Frequency:	10.000000 GHz	Int PHN (100.0 .. 1.0 M)	-60.9 dBc	
Signal Level:	4.7 dBm	Residual PM	72.895 m°	
Cross Corr Mode	Harmonic 1	Residual FM	608.224 Hz	
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.0202 ps