



ELECTRICAL SPECIFICATIONS:

RF OUTPUT

FREQUENCY RANGE:	10 MHz - 20 GHz
FREQ. STEP @ Fout < 10 GHz:	0.01 Hz
SWITCHING TIME:	80 μ s (STANDARD MODE) 30 μ s (FAST MODE)
OUTPUT POWER:	+15 dBm
POWER ACCURACY:	± 1 dBm
OUTPUT ATTENUATOR:	32 dB, 0.5 dB Step
OUTPUT RETURN LOSSES:	14 dB
HARMONIC LEVEL:	-40 dBc Typ.
SUBHARMONIC LEVEL:	-40 dBc Typ.
SPURIOUS LEVEL:	-60 dBc

DIGITAL OUTPUT

FREQUENCY RANGE:	300 kHz - 700 MHz
AUX1/2 OUTPUT:	DIFFERENTIAL: LVPECL, LVDS, HCSL 2x SINGLE-ENDED: LVCMOS
AUX3 OUTPUT:	COHERENT 6-12 GHz RF SIGNAL

INTERNAL FREQUENCY STABILITY

TEMPERATURE STABILITY:	± 1 ppm
AGING:	± 3 ppm (20 years)

EXTERNAL REFERENCE

INPUT FREQUENCY:	10/100 MHz
INPUT POWER:	+5 dBm ± 10 dB

PHASE NOISE (Typ)

	@ 1 GHz	@ 3 GHz	@ 10 GHz	@ 20 GHz	Unit
1KHz	-117	-108	-97	-91	dBc/Hz
10KHz	-125	-114	-103	-97	dBc/Hz
100KHz	-129	-119	-108	-102	dBc/Hz
1MHz	-144	-135	-125	-119	dBc/Hz
5MHz	-156	-149	-140	-134	dBc/Hz

INTERNAL REFERENCE

TCXO

ELECTRICAL

SUPPLY VOLTAGE:	+5VDC $\pm 10\%$
POWER CONSUMPTION:	10 W

CONNECTORS

RF OUT:	SMA (F)
REF IN1:	BNC (F)
REF IN2:	BNC (F)
AUX1, AUX2:	SMA (F)
AUX3:	SMA (F)
POWER/RS232/SPI:	DE-15 (M)
CTRL:	Reserved
USB:	Type Mini B receptacle (USB 2.0)
ETHERNET:	10BaseT LAN interface

ENVIRONMENTAL RATINGS:

TEMPERATURE RANGE:	-20 $^{\circ}$ TO +70 $^{\circ}$ C
IP CODE:	IP67



NOTE: The above specifications are subject to change or revision. Specifications are at 25 $^{\circ}$ C unless stated otherwise.



QP microWAVE
CÓLQUIDE 6
28231 LAS ROZAS
MADRID, SPAIN

APPROVALS	DATE	SIGNED	DESCRIPTION:
DRAW	02/06/20	CRU	SYNTHESIZER 10 MHz - 20 GHz
CHECKED	02/06/20	BME	QP-FSPLL-0020-05
APPROVED	02/06/20	JAV	

CODE:	REV.:	SHEET:
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