

Technical requirement – RF Synthesiser

Performance Parameters	Specifications
Frequency Range	Min : 10MHz Max >= 18GHz
Frequency Resolution	At least 0.001Hz
Phase Offset	0 deg to 360 Deg
Input impedance	50 ohms
Maximum Switching Speed (Frequency)	1ms or better
Switching speed	1ms or better
Output Power	>= 16 dBm over the entire range.
SSB Phase noise @2.0 GHz, 10 kHz offset	≤ -125 dBc/Hz
SSB Phase noise @4.0 GHz, 10 kHz offset	≤ -120 dBc/Hz
SSB Phase noise @8.0 GHz, 10 kHz offset	≤ -110 dBc/Hz
SSB Phase noise @12.0 GHz, 10 kHz offset	≤ -110 dBc/Hz
SSB Phase noise @18.0 GHz, 10 kHz offset	≤ -105 dBc/Hz
Harmonics (CW mode)	<=-30dBc
Sub Harmonics (CW):10MHz to 8GHz	<=-55dBc
Sub Harmonics (CW):8GHz to 18GHz	<=-50dBc
Pulse Modulation parameters	
Min Pulse Width(ns)	<=50ns
Rise Time(ns)	<=20ns
Fall Time(ns)	<=20ns
Pulse On/OFF ratio	>=50dB
Max SWR(S11) at RF output connector	<=1.8
RF output Connector type	SMA
Remote Control Interface	Communication Interface USB or Ethernet Communications
Warranty	Three years