

Specification for S-Band ULPN Frequency Synthesizer

Model: N-DCN-DC252-1021R

Item	Specification	Note
1.0 Electrical Performance		
1.1 RF Output Signal	1750 ~ 2575 MHz	Frequency set at power 'on' Value: 2162.5MHz RL=50ohms
1) Frequency Range	1 MHz	
2) Step Size, Min.	+16 ~ +18 dBm	
3) RF Output Power		
4) Phase Noise Level		
Offset 100 Hz	≤ -100 dBc/Hz	
1 KHz	≤ -110 dBc/Hz	
10 KHz	≤ -132 dBc/Hz	
100 KHz	≤ -132 dBc/Hz	
1 MHz	≤ -140 dBc/Hz	
10 MHz to 1 GHz	≤ -150 dBc/Hz	
5) Spurious		
Non-Harmonics	≤ -65 dBc	
Harmonics	≤ -35 dBc	
1.2 External Reference		
1) Input Frequency	10.000 MHz Sine Wave	Input Impedance=50ohms
2) Input Level	0 ~ +13 dBm	
3) Phase Noise Level	C/N ≤ -150 dBc/Hz @100Hz	
1.3 Reference Output		
1) Output Frequency	10.000MHz Sine Wave	RL=50ohms
2) Output Level	+6dBm \pm 2dB,	
3) Phase Noise Level	C/N ≤ -150 dB/Hz @100Hz	
※1 4) Frequency Stability	Same as Ext. Ref. IN	
1.4 Control Interface		
1) 3-Wires Serial Data	Serial Data, Clock & Strobe	TTL-Level
1.5 Alarm Out	Lock : > 2.7V Un-Lock : < 0.4V	3.3V_CMOS_Level_High 3.3V_CMOS_Level_Low
1.6 Reference Indicator on pin 5 J2	External REF : > 2.7V Internal REF : < 0.4V	3.3V_CMOS_Level_High 3.3V_CMOS_Level_Low
1.7 DC Power	+12V \pm 5% 800mA Typical	
2.0 Operating Temp. Range	-20 ~ +70 deg. C	

Item	Specification	Note
3.0 Package		
3.1 Package Size	120 (W) × 70 (L) × 35 (H) mm Tolerance : ±0.1mm	See Note ※2
3.2 Connector	RF_OUT : SMA (F) REF_IN, REF_OUT : SMA (F) Control, Alarm, DC Power : DF11-14DP-2DS	Hirose

*1 Frequency Stability, 1x10⁻⁷ will be kept by Internal Reference when No External Reference in.

*2 When the products will be mounted on suitable base plate, a heat-sink may not be required.

- A) When the synthesizer will be operated at room temperature +25 Degrees C. as environmental, the package temperature goes up approximately +48 Degrees C. In this case the synthesizer does not need any cooling.
- B) When the synthesizer will be operated above +50 Degrees C. as environmental, the package temperature goes up above +70 Degrees C. To keep the package temperature below +70 Degrees C., the synthesizer should be mounted on a baseplate or heatsink with thermal resistance $\Theta=2$ to 2.5K/Watt.

Recommended
HEATSINK Option:
Units: mm

Package Outline



