UDCX-2430

mmWave Solution

DATA SHEET

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1. UDC Overview

Aethertek's up down converter "UDCX-2430" is designed for testing mmWave devices, including CPE, FWA, and Radio Unit, offering a cost-effective solution by integrating with mass production testers. Its built-in GPS functionality ensures stable clock sources, enhancing frequency stability.

2. Key Features

- Supports 5G NR FR2 bands n257, n258, and n261
- Compliant with 3GPP Rel 16 5G-NR standards
- 256QAM DL / UL modulation
- Maximum carrier bandwidth 1GHz
- Synchronization modes : GPS, Internal REF, External REF IN
- Includes a 10MHz output
- Ensures + / - 10 ppb frequency stability of the internal clock
- Features a USB Type-C control interface

3. UDCX-2430 Radio Specification

28GHz Model	Min	Typ.	Max	Unit	Note
RF Frequency Range	24	-	30	GHz	
IF Frequency Range	2.6	-	5.8	GHz	
LO Frequency Range	19	-	27	GHz	LO, Low side injection
REF IN	-	10	-	MHz	Adjustable
REF Out	-	10	-	MHz	Adjustable
Up-Conversion Gain	-	15	-	dB	
Down-Conversion Gain	-	2	-	dB	
RF Output P1dB	-	7	-	dBm	
IF Output P1dB	-	0	-	dBm	

4. UDCX-2430 Absolute Maximum Rating

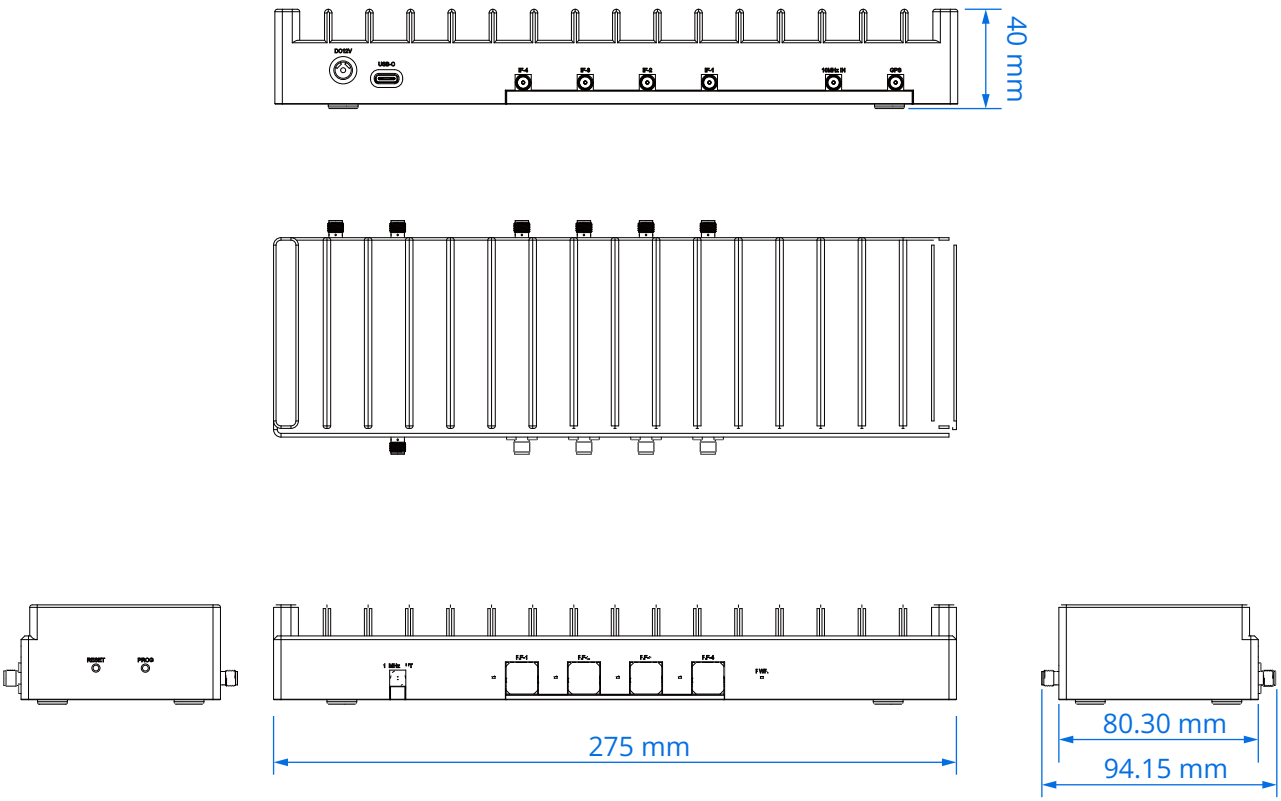
Parameter	Type	Min	Typ.	Max	Unit	Note
RF Ports	I / O	-	-	See Note	dBm	Max Input : 0dBm Max Output : 10dBm
IF Ports	I	-	-	-20	dBm	[1]
External REF IN	I	-	-	5	dBm	
REF Out	O	-	-	5	dBm	

[1] To ensure signal quality and compliance with the 3GPP specification TS38.141, the value is defined based on the test condition 5G NR waveform TM3.1a (100 MHz bandwidth, 10 dB PAPR at 0.01% CCDF)

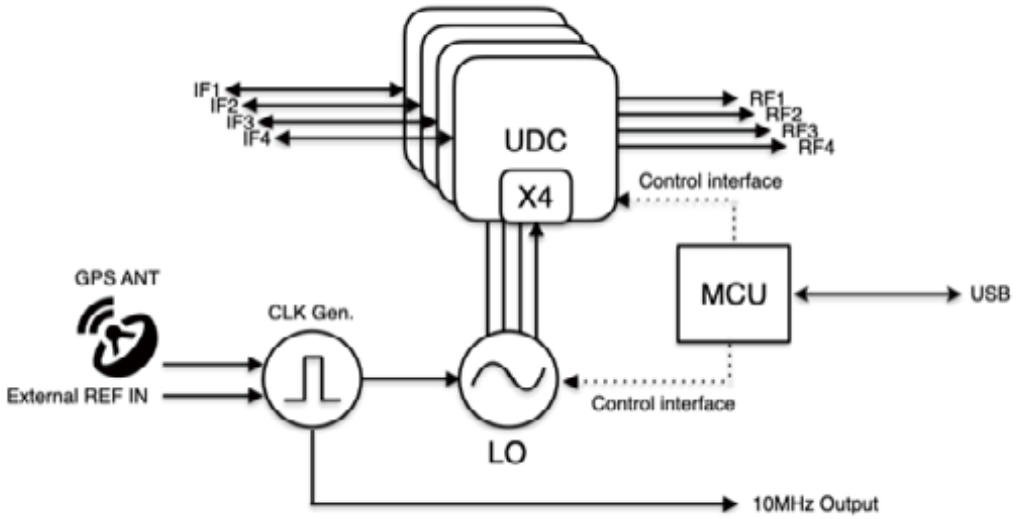
5. UDCX-2430 Absolute Maximum Rating

Parameter	Min	Typ.	Max	Unit
Power Supply Voltage	-	12	-	V
Power Supply Current	-	-	3	A
Operating Temperature	0	-	40	℃
Storage Temperature	-40	-	85	℃

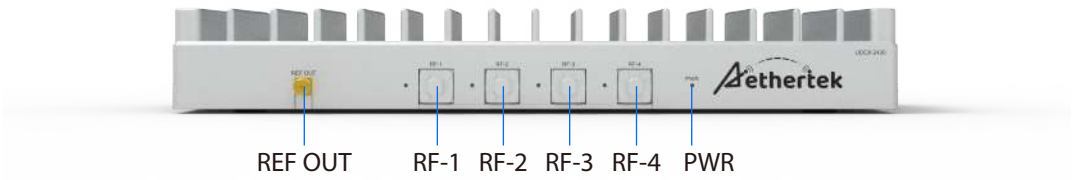
6. Dimension

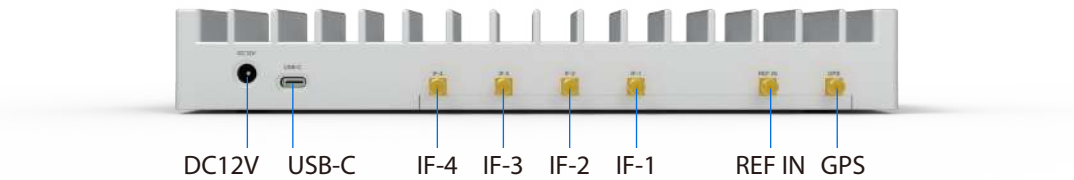


7. Block Diagram



8. Front / Rear Panel Interface





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Contact us to experience our 5G innovative solutions!

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