



The modular and compact TMYTEK Up/Down Frequency Converter Module (UDM-0630 and UDM-1753) provides a wide assortment of features ideal for any mmWave frequency converter application. And, its tiny footprint makes it easier than ever to integrate into any test equipment. These two modules cover from C-band to full Ku/Ka/Q-band for SATCOM and 5G NR FR2, at 6 to 30 GHz and 17 to 53 GHz, respectively.



Why UDM?

- Supports from C-band to full Ku/Ka/Q-band frequency range
- Easily integrable with small footprint
- Software-ready, minimizing system integration costs

Compact 6-53 GHz Frequency Extender

Streamline Your 5G & SATCOM RF Testing

Features	UDM-0630 ¹	UDM-1753 ²
RF	6-30 GHz	17-53 GHz
IF	0.01-10 GHz	0.01-10 GHz
Built-in LO	6-30 GHz	17-53 GHz
Highly precise OCXO reference clock	•	•
Conversion loss	10 dB (typical)	13 dB (typical)
Bi-directional frequency conversion	•	•
10 MHz and 100 MHz input/output synchronization	•	•
GPS synchronization (optional)	• (optional)	• (optional)
RoHS compliant	•	•

¹UDM-MM1-0630-0110-D

²UDM-MM2-1753-0110-D

Parameter	Conditions	Unit	UDM-0630			UDM-1753		
			Min.	Typ.	Max.	Min.	Typ.	Max.
RF frequency	-	GHz	6	-	30	17	-	53
IF frequency	-	GHz	0.01	-	10	0.01	-	10
LO frequency	-	GHz	6	-	30	17	-	53
LO frequency resolution	-	MHz	-	1	-	-	1	-
Conversion loss	Full band	dB	-	10	-	-	13	-
IF to RF isolation	-	dB	30	-	-	30	-	-
RF to IF isolation	-	dB	30	-	-	30	-	-
Lo to RF leakage	-	dBm	-25	-	-	-25	-	-
Lo to IF leakage	Full band	dBm	-25	-	-	-25	-	-
Tx output P1dB	-	dBm	2	-	-	2	-	-
Rx input P1dB	-	dBm	10	-	-	10	-	-
Rx DSB noise figure	-	dBm	15	-	-	15	-	-
RF return loss	Full band	dB	10	-	-	10	-	-
IF return loss	Full band	dB	10	-	-	10	-	-
Warm-up time	-	minutes	-	30*	-	-	30*	-

* Suggested warm-up time

