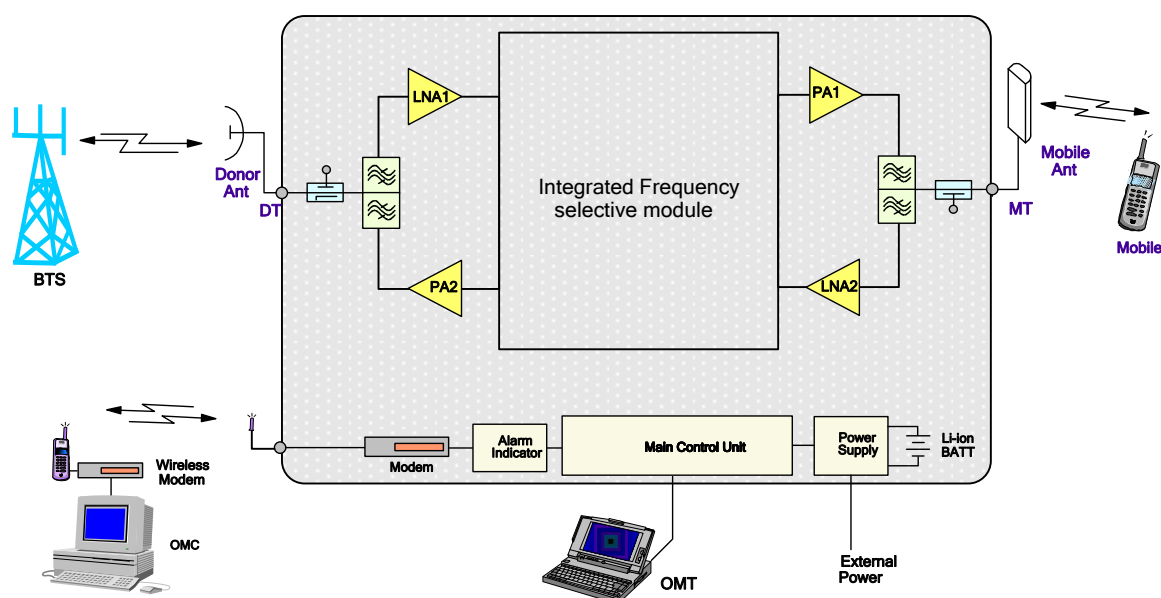# 1800MHz Digital Band Selective Repeater

mBDA-1833

Features

- Up to 4 pass band segments with independent ON/OFF for maximum flexibility.

- Max. 2W total output power, support GSM, WCDMA, LTE, NB-IoT (Stand Alone, Guard Band and In-band) and 5G NR*, or hybrid application.

- Offline isolation detection for easy commissioning.

- Friendly and easy OMT interface via RJ45 connection

- Integrated wireless modem for remote monitoring and control.

- Compatible to Comba generic OMT and CMS platform.

- Waterproof, damp-proof and omni-sealed (IP65).

.

Note: 5G NR will be support by software upgrade at Q2, 2021

Functional Block Diagram

Specifications

Electrical			0.5W	1W	2W
Operating Frequency, Uplink		MHz	1710-1785		
Operation Frequency, Downlink		MHz	1805-1880		
Operating Bandwidth Per Sub-band		MHz	0.2-25*		
Number of Sub-bands			4		
Total Output Power, Uplink		dBm	23		
Total Output Power, Downlink		dBm	27	30	33
Maximum System Gain		dB	90		
Attenuation Adjustment Range (1dB step)		dB	0-30		
Pass Band Ripple at FBW, p-p		dB	≤ 4		
Uplink Noise Figure		dB	≤ 5		
System Group Delay		μsec	≤ 6		
Out-of-Band Gain			Compliance with 3GPP TS 36.106		
Spurious Emission					
EVM					
ACRR					
PCDE					
Spurious Emission Mask					
Intermodulation					
Out-of-Band Rejection @ GSM	Offset ≥ 600KHz	dBc	≥ 45		
	Offset ≥ 1MHz		≥ 60		
Intermodulation @ GSM		dBm	≤ -13		
Absolute Maximum RF input power		dBm	-10		
Input VSWR			≤ 1.6		
Impedance		Ω	50		
Mechanical					
Dimensions, W x H x D		mm/in	361x222x93 / 14.2x8.7x3.7		
Weight (approx.)		kg/lb	7 / 15.4		
Power Supply		VAC	100-240/47-63Hz		
Power Consumption (approx.)		W	60		
Enclosure Cooling			Convection		
RF Connectors			N-Female		
Operating Temperature		°C	-33 to +55		
Operating Humidity			≤ 95%		
Environmental Class			IP65		
MTBF		hrs	> 50,000		

Note: Typical specification at room temperature;
*: GSM Max. Bandwidth 25MHz, LTE Max. Bandwidth 20MHz.