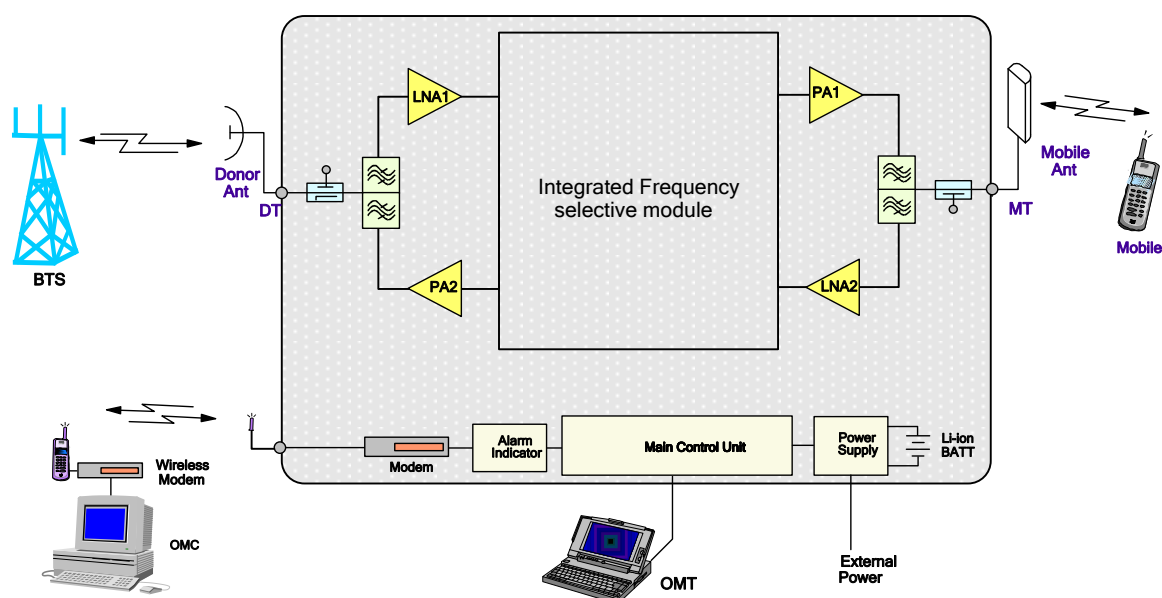# 800MHz Digital Band Selective Repeater
mBDA-0833

Features

- Up to 4 pass band segments with independent ON/OFF for maximum flexibility.
- Max. 2W total output power, support 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	832-862		
Operation Frequency, Downlink	MHz	791-821		
Operating Bandwidth Per Sub-band	MHz	0.2-20		
Number of Sub-bands		4		
Total Output Power, Uplink	dBm	17		
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	$\leq$ 5		
System Group Delay	μsec	≤ 6		
Out-of-Band Gain		Compliance with 3GPP TS 36.106		
Intermodulation				
Spurious Emission				
EVM				
ACRR				
PCDE				
Spurious Emission Mask				
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		$\leq$ 95%		
Environmental Class		IP65		
MTBF	hrs	> 50,000		

Note: Typical specification at room temperature;

900MHz Digital Band Selective Repeater
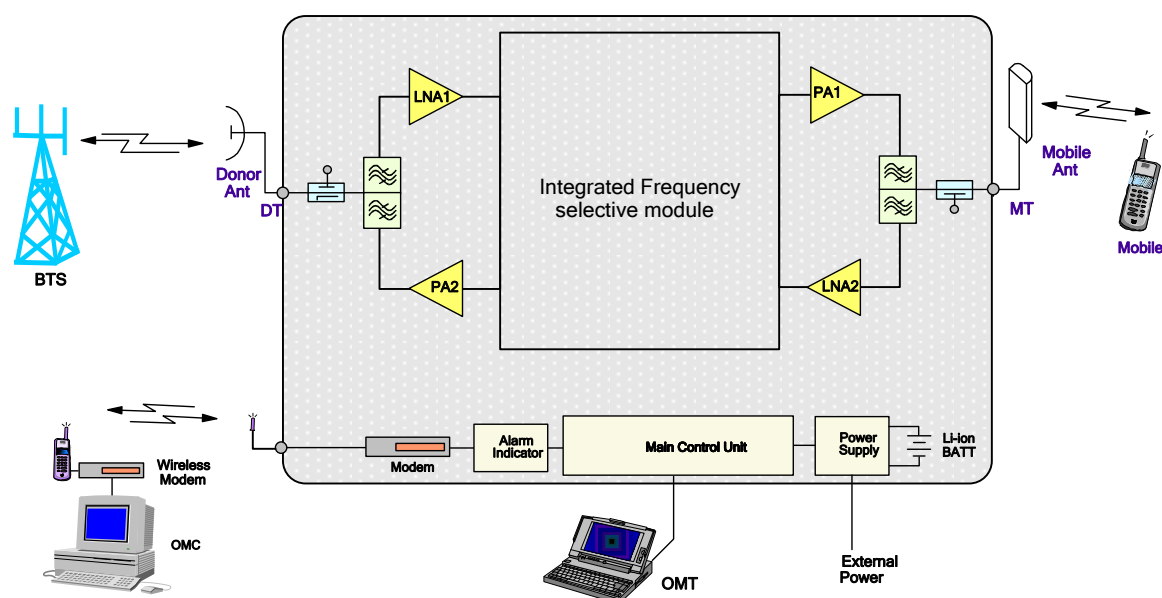
mBDA-9133

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		880-915		
Operation Frequency, Downlink	MHz		925-960		
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		≤ 6.5		
Out-of-Band Gain			Compliance with 3GPP TS 25.106 @WCDMA Compliance with 3GPP TS 36.106 @LTE		
Intermodulation					
Spurious Emission					
EVM					
ACRR					
PCDE					
Spurious Emission Mask					
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, WCDMA and LTE Max. Bandwidth 20MHz.

1800MHz Digital Band Selective Repeater
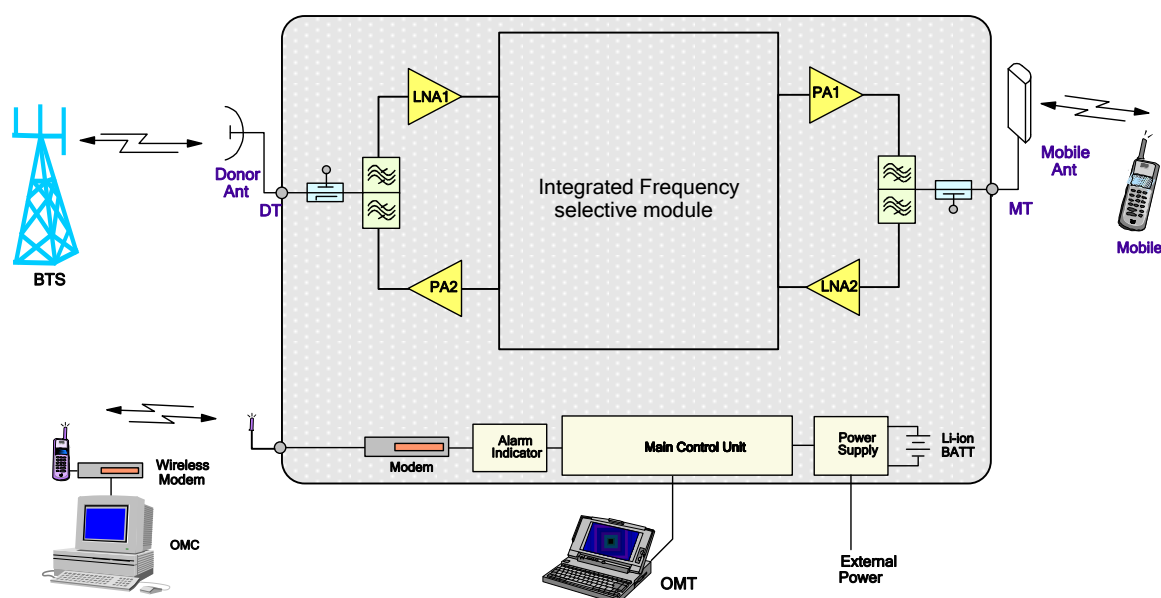
mBDA-1833

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.

2100MHz Digital Band Selective Repeater
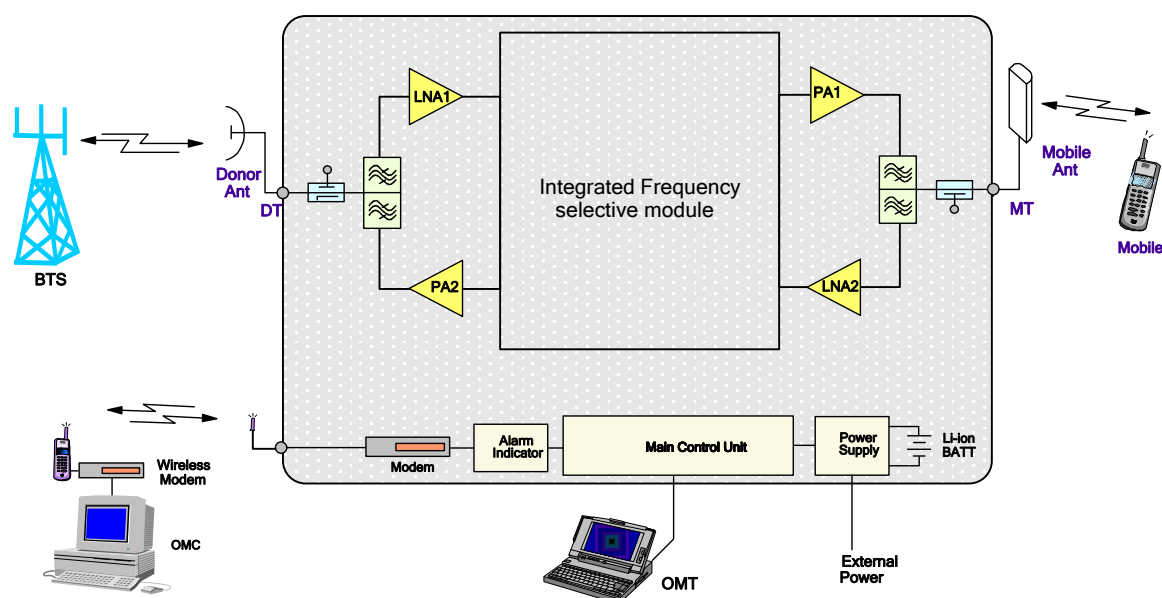
mBDA-2133

Features

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

- Max. 2W total output power, support 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	1920-1980		
Operation Frequency, Downlink	MHz	2110-2170		
Operating Bandwidth Per Sub-band	MHz	0.2-20*		
Number of Sub-bands		4		
Total Output Power, Uplink	dBm	17		
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 3.84MHz	dB	≤ 2		
Uplink Noise Figure	dB	≤ 5		
System Group Delay	μsec	≤ 6		
Out-of-Band Gain		Compliance with 3GPP TS 25.106 @ WCDMA Compliance with 3GPP TS 36.106 @ LTE		
Intermodulation				
Spurious Emission				
EVM				
ACRR				
PCDE				
Spurious Emission Mask				
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;
*: WCDMA Max. Bandwidth 20MHz, LTE Max. Bandwidth 20MHz.

2600MHz Digital Band Selective Repeater
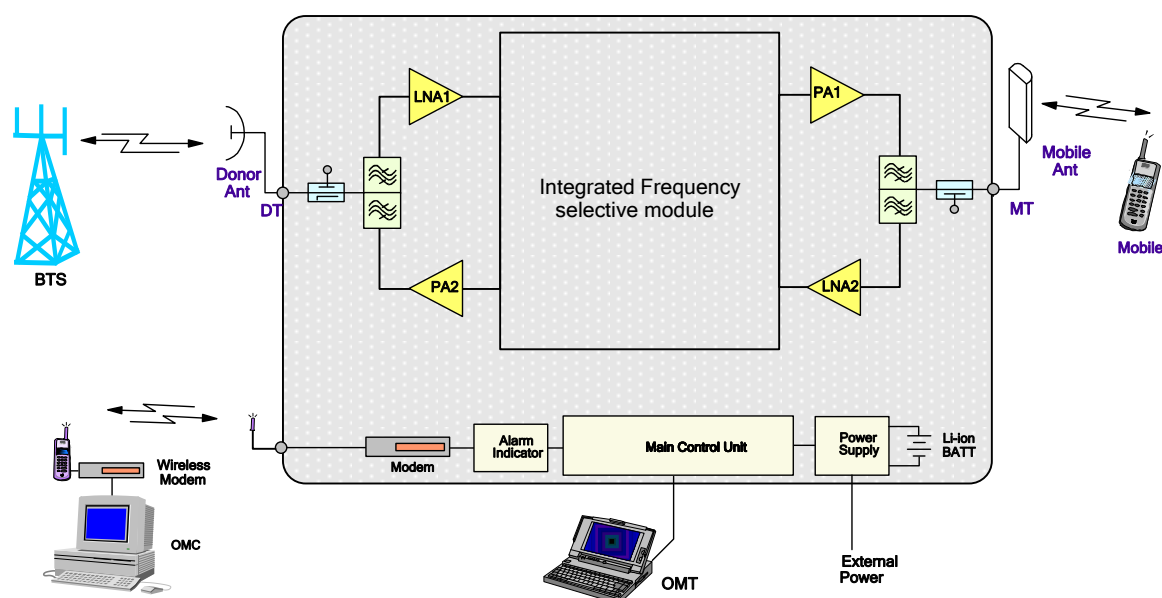
mBDA-2633

Features

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

- Max. 2W total output power, support 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	2500-2570		
Operation Frequency, Downlink	MHz	2620-2690		
Operating Bandwidth Per Sub-band	MHz	3-20		
Number of Sub-bands		4		
Total Output Power, Uplink	dBm	17		
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		
Input Intermodulation				
Spurious Emission				
EVM				
ACRR				
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		$\leq 95\%$		
Environmental Class		IP65		
MTBF	hrs	> 50,000		

Note: Typical specification at room temperature;