

Multi-Operator Multi-Band Selective Repeater (20W)

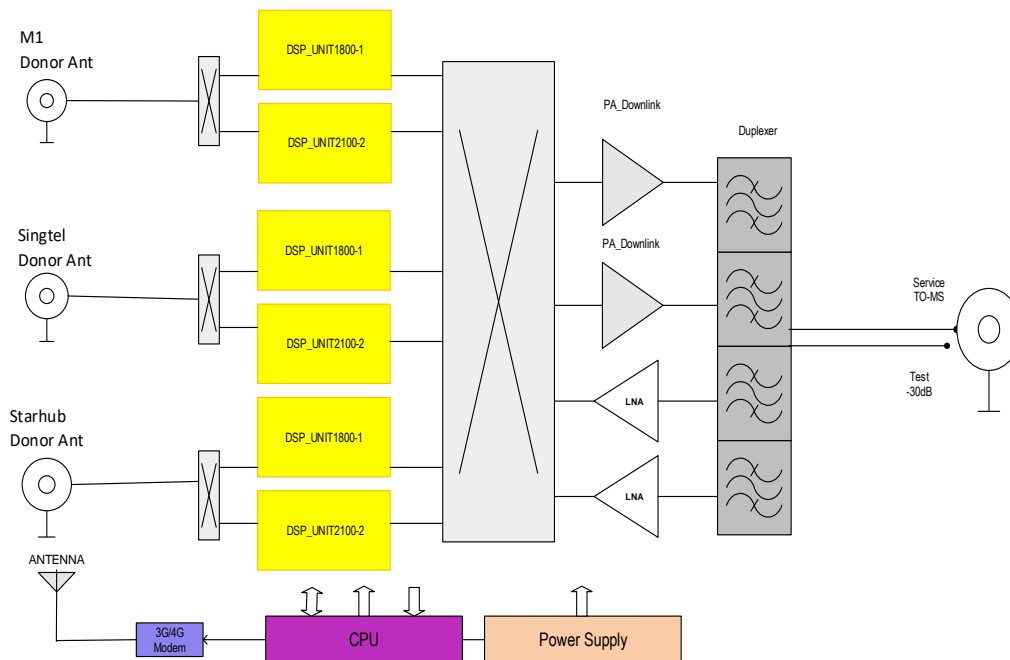
MB-R1821



Features

- Maximum composite RF output power of 20W per band
- Balance RF output power allocation of 6.6W per operator for 3 operators
- Self-adaptive and self-detective isolation
- Gain setting of up to 90dB
- Adopting digital filter to increase signal quality
- Selection of operating frequency and BW for up to 20M in LTE and 3G band;
 - 3G – Selection of operating channels (5, 10, 15MHz(continuous)+5MHz(non-continuous)) per operator for 3 operators
 - 4G – Selection of 1+1 channel per operator for 3 operators
- Small form factor for easy installation
- Built in monitoring system using 3G/4G modem
- Individual operator's donor antenna port and combined operators serving antenna port

Function Block Diagram



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Technical Specifications

No.	Description	Reverse(Uplink)	Forward(Downlink)
1	Frequency Range	1710~1785	1805~1880
		1920~1980	2110~2170
2	Support Band	3G (3+1); 4G (1+1)	3G (3+1); 4G (1+1)
3	Band Width (selectable) 0.2MHz (LTE) and 5MHz (3G) step adjustment	0.2-20MHz (LTE)	0.2-20MHz (LTE)
		5-20MHz (3G)	5-20MHz (3G)
5	Out of Band Gain	$\pm 400\text{KHz}$ $\leq 50\text{dB}$	
		$\pm 600\text{KHz}$ $\leq 40\text{dB}$	
		$\pm 1\text{MHz}$ $\leq 35\text{dB}$	
		$\pm 5\text{MHz}$ $\leq 25\text{dB}$	
6	Max Gain	90 dB	
7	Gain Flatness	$\leq \pm 1.5\text{dB}$ (p-p)	
8	ALC Range	$\geq 15\text{dB}$	
9	Gain Control Range(MGC)	$\geq 31\text{dB}$ (Gain 59dB - 90dB in 1 dB steps)	
10	Gain Control Accuracy	1~20dB@ $\pm 1\text{dB}$	
		$>20\text{dB}$ @ $\pm 1.5\text{dB}$	
11	Total RF Input Power (no damage)	$\leq +10\text{dBm}$	$\leq +10\text{dBm}$
12	Output Power per Band	UpLink: $\geq 20\text{dBm}$	DownLink: 43dBm
13	Output Power Accuracy over all conditions(-10degC to +55degC)	$\leq \pm 3\text{dB}$	
14	Spurious Emission	9KHz~1GHz $\leq -36\text{dBm}$ 1GHz~12.75GHz $\leq -30\text{dBm}$	

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15	Noise Figure	$\leq 3.5\text{dB}$	$\leq 3.5\text{dB}$
16	Group Delay	$\leq 5 \mu\text{sec}$	$\leq 5 \mu\text{sec}$
17	Tx / Rx isolation	$\geq -105\text{dBc}$	
18	V.S.W.R	≤ 1.3	≤ 1.3
19	Impedance	50Ω	50Ω
20	Step Attenuation	31dB / 1dB Step	
21	Power Supply	Input 110 V - 260 V AC , 50 HZ	
22	Power Consumption	350W	
23	Cooling	Heatsink convection cooling	
24	Operating Temperature	$-10\sim+55\text{degC}$	
25	RF Connector	N (female)-Type	N (female)-Type
26	Water Proof	IP 65	
27	Dimension*	513mm x 460mm x 232mm	
28	Weight*	30Kg	
29	MTBF	$\geq 50,000$ hours	