

ZDW 43dBm Multi-Operators Triband Digital Repeater

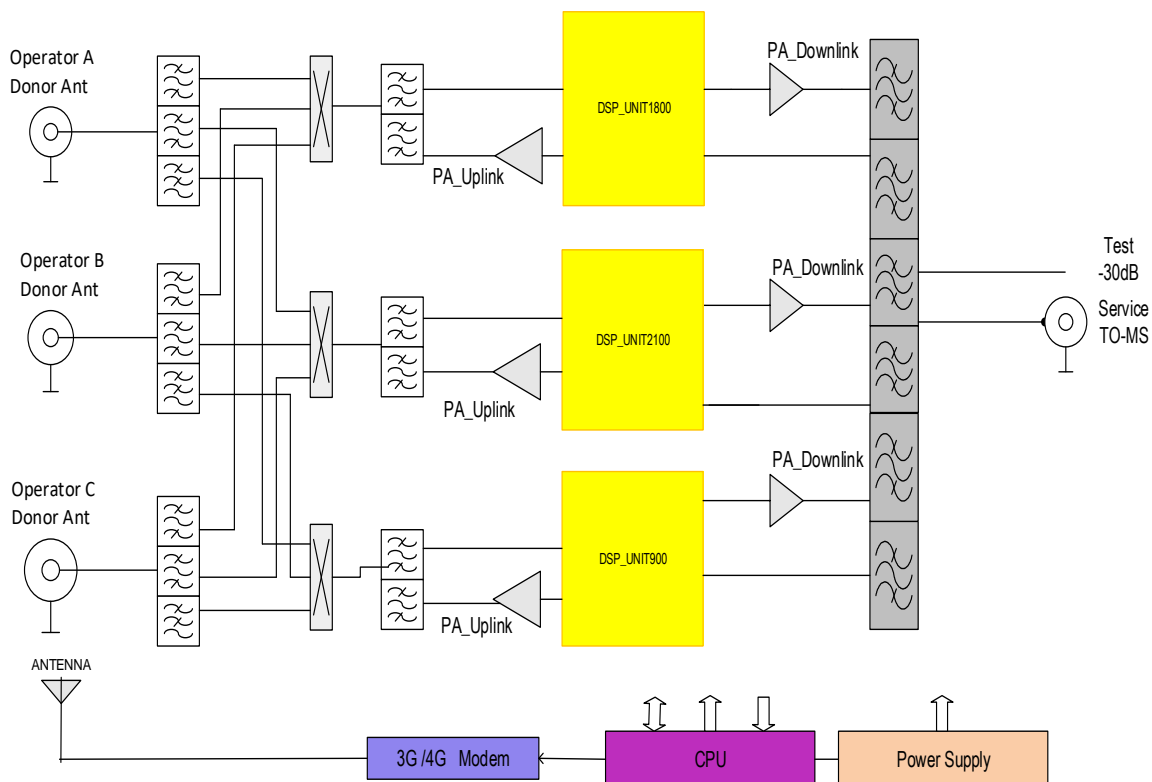
MB-R91821

MB-R91821 is a 20W per band Multi-Operators Triband Digital Repeater. It supports WCDMA and LTE standards in the 900MHz, 1800MHz and 2100MHz. It is uniquely designed with each operator having individual donor antenna port. This allows each operator to adjust its donor antenna direction without affecting other operators. MB-R91821 is embedded with CW signal generator to provide isolation test between the donor and serving antenna. This allows easy troubleshooting of low isolation and easy commissioning with in-built isolation measurement.

Highlights

- Support up to 6 selected sub-bands within WCDMA/LTE900/1800/2100
- 43dBm per band with 90dB gain
- Adopting digital filter to increase signal quality
- Individual operator's donor antenna port and combined operators serving antenna port
- Built in CW generator to provide isolation test between the donor and serving antenna
- Small and light weight form factor for easy installation
- Built in monitoring system using 3G/4G modem

Block Diagram and Outlook



Technical Specification

Item	Uplink		Downlink
Frequency Range	900 MHz	880-915MHz	925-960MHz
	1800 MHz	1710-1785MHz	1805-1880MHz
	2100 MHz	1920-1980MHz	2110-2170MHz
Max. Sub-Bands	900 MHz	6 (0.2-20MHz per sub-band)	6 (0.2-20MHz per sub-band)
	1800 MHz	6 (0.2-20MHz per sub-band)	6 (0.2-20MHz per sub-band)
	2100 MHz	6 (0.2-20MHz per sub-band)	6 (0.2-20MHz per sub-band)
Max Gain	90 dB		
Gain Flatness	≤ ±1.5dB (p-p)		
Frequency Error	≤0.05ppm		
ALC Range	≥15dB		
Gain Control Range(MGC)	≥31dB (Gain 59dB - 90dB in 1 dB steps)		
Gain Control Accuracy	1~20dB@±1dB >20dB@±1.5dB		
Total RF Input Power (no damage)	≤10dBm		≤10dBm
Output Power	900 MHz	UpLink: 27dBm	DownLink: 43dBm
	1800 MHz	UpLink: 27dBm	DownLink: 43dBm
	2100 MHz	UpLink: 27dBm	DownLink: 43dBm
Operating Maximum Gain	90dB		90dB
Output Power Accuracy	≤+/-3dB@-10° C to +55° C		
Spurious Emission	9KHz~1GHz≤-36dBm 1GHz~12.75GHz≤-30dBm		
Out of band Gain	GSM comply ETSI EN 300 609 at 0.2MHz out of the set bandwidth WCDMA comply ETSI TS 125 143 LTE comply ETSI TS 136 143		
Noise Figure	900 MHz	≤5dB	≤5dB
	1800 MHz	≤5dB	≤5dB
	2100 MHz	≤5dB	≤5dB
Group Delay	≤4 μsec		≤4 μsec
V.S.W.R	≤1.3		≤1.3
Impedance	50Ω		50Ω
Power Supply	Input 110V-260VAC ,50 Hz		
Power Consumption	≤150W (single band) ≤250W(dual band) ≤350W (Tri-band)		
Cooling	Heatsink convection cooling		
Operating Temperature	-25~+55 ° C		
RF Connector	N(F) or 4.3-10		
Water Proof	IP 65		
Dimension	513 X 460 X 232 mm		
Weight	≤38Kg		
MTBF	≥100,000 hours		

Technical specification is subject to change without notice

