BTI WIRELESS

CROSSFIRE

OFR

Optical fiber Repeater

Single Band Digital Radios
46dBm Output Power
Passive Cooling
Integrated Bluetooth

OVERVIEW

CrossFire OFR is a digital transmission platform supporting the CPRI protocol for cellular over fiber optic cable. The power amplifier leverages the Digital Pre-Distortion technology, allowing for a significant reduction in power consumption, compared to analog technology. This platform supports GSM, CDMA, UMTS, TD-LTE, LTE and NB-IoT. It is ideal for single-operator and single-band cellular services deployment for large coverage areas.

KEY FEATURES

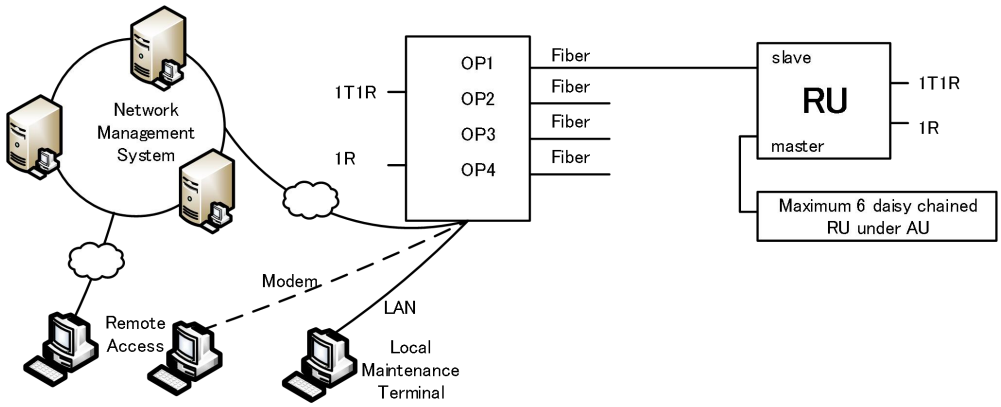
- 700 to 2700MHz Range
- Up to 46dBm Output Power
- Lightning Protection
- Supports 1T1R or 1T2R
- Optical Connectivity
- Support up to 40MHz IBW
- Optical Cascading of RU's
- Wired and Wireless Monitor

SYSTEM ELEMENTS

Access Unit

Remote Unit

DIAGRAMS



TECHNICAL SPECIFICATIONS	
System	
Frequency Range (Non-Contiguous)	700MHz – 2700MHz
IBW Bandwidth (Downlink & Uplink)	≤40MHz (Contiguous)
Channel	1T1R or 1T2R
System Topology	4 Star Connection, 3 Cascade
System Delay Adjustment	Up to 100.00μs @ 1μs/step
Fiber Loopback	Support
Fiber Bypass	Support (External Accessory)

FORWARD PATH (DOWNLINK)					
Output Power per Carrier	**Number of Carriers**	**1**	**2**	**4**	**8**
	Power(dBm)	46	43	40	37
Maximum Gain	52 ± 3dB				
Maximum Input Power	+10dBm				
Error Vector Magnitude	<6.0% @ 64 QAM				
Ripple	<3dB (Peak to Peak)				
Manual Gain Control	30dB @ 1dB/step (AU:15dB, RU:15dB)				
System Delay (AU+RU)	9μS				
VSWR (AU/RU)	≤1.5				

REVERSE PATH (UPLINK)	
Maximum Output Power per Band	2dBm
Maximum Gain	52 ± 3dB
Maximum Input Power	-10dBm
Ripple	<3dB (Peak to Peak)
Manual Gain Control	30dB @ 1dB/step (AU:15dB, RU:15dB)
System Delay (1AU+1RU)	9μS
Noise Figure	≤5dB @ Maximum Gain

SUPPORTED BANDS				
Band	**3GPP Band**	**Downlink**	**Uplink**	**Max Bandwidth**
850 MHz	5	869-880 MHz	824-835 MHz	11 MHz
900 MHz	8	934-954 MHz	889-909 MHz	20 MHz
1800 MHz A	3	1805-1830 MHz	1710-1735 MHz	25 MHz
1800 MHz B	3	1840-1860 MHz	1745-1765 MHz	20 MHz
1800 MHz C	3	1860-1880 MHz	1765-1885 MHz	20 MHz
2100 MHz	1	2110-2130 MHz	1920-1940 MHz	20 MHz
2100 MHz	1	2130-2160 MHz	1940-1970 MHz	30 MHz
TDD 1900 MHz	39	1885-1915 MHz	1885-1915 MHz	30 MHz
TDD 2300 MHz	40	2320-2370 MHz	2320-2370 MHz	40 MHz
TDD 2600 MHz	38	2575-2635 MHz	2575-2635	40 MHz

Note: Other frequency can be customized

INTERFACES	
AU/RU Interface	N Female
Optical Connector Type	SFP, Standard LC
Optical Transmission Rate	2.4576GB/s @ IBW=20MHz; 4.9152GB/s @ IBW=40MHz
Optical fiber Length	2km / 10km / 20km
Maintenance Interface	Ethernet RJ45

ELECTRICAL	
Maximum Power Consumption (AU/RU)	AU<45W/ RU<250W
AC Power	220V AC, 50/60Hz
DC Power	48VDC ± 20%
Lightning Protection(RU)	5KA

ENVIRONMENTAL	
Mean Time Between Failure (MTBF)	>100,000 hours
Operating Temperature (AU)	0°C ~ 45°C/ 32°F ~ 113°F
Operating Temperature (RU)	-40°C ~ 55°C/ -40°F ~ 131°F
Storage Temperature	-40°C ~ 70°C/ -40°F ~ 158°F
Humidity	5% to 85% (Non-Condensing)
Cooling	Passive
Installation	AU: Wall or 19” Rack | RU: Wall or Pole
Ingress Protection Rating	AU: IP30 (Indoor) | RU: IP65 (Outdoor)

MECHANICAL	
AU: Width x Height x Depth (Weight)	480mm x 44mm x 210mm (3.7kg)
RU: Width x Height x Depth (Weight)	420mm x 160mm x 280mm (16.8kg)

ELEMENT MANAGEMENT	
Local Monitor	Local OMT. Access via AU or RU (Web Based)
Remote Monitor	NMS (LAN UDP), Modem (SMS, Wireless UDP/TCP)

Contact Us

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