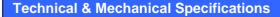


Product Name

VHF 20W BTS Coupled Fiber Optical Repeaters (BDA) VHF FiberLink-104

Product Features

- ◆ High linearity PA; High system gain
- ◆ Intelligent ALC technology
- ◆ Full duplex and high isolation from uplink to downlink
- Automatic Operation convenient operation
- ◆ Integrated technique with reliable performance





1. Master Unit Technical Specification

lk	Testing Condition	Technical Specification		Memo		
Items		Downlink	Uplink			
RF Specifications						
Frequency Range	Working in-band	138-1	74MHz			
Max Bandwidth	Working in-band	4N	ЛНz			
Max RF Input level	Working in-band	+5dBm	-			
Min RF Input level	Working in-band	-70dBm	-			
Max RF input without damage	Working in-band	10dBm	-			
VSWR	Working in-band	≤1.5				
Connector		N-Female				
	Opti	cal Specifications				
Optical Output Power	_	-3dBm±2dB	-			
Optical Max Input power			+4dBm			
Optical Min Input power			+0dBm			
Optical Input damage level			+10dBm			
Optical length		DL: 1310nm, UL: 1550nm				
Optical Loss		≤10dB /Includes the loss of the optical splitter				
Optical Connector		FC/APC X 1(WDM, one core)				
Nos Of Optical Ports		2/4/6/8				
ROUs drive Capacity		2/4/6/8		Customized		
	Power Supply ar	nd Mechanical Specifi	ications			
Power Supply		AC110/220V±60V,45~60Hz				
Dimension		435mm*312mm*90mm				
Weight		8kg				
Max. Power Consumption		50W				
Operating Temperature		-5~+45°℃				
Operating Humidity		≤85%				
Environmental Class		IP20				
RF Connector		N-Female, 50ohm				
MTBF		≥50000 hours				
Monitor Interface		Local Monitor: Remote Monitor: RS232 UMTS Option		Option		
wiomitor interrace		mo	dem			
Alarm Type		No Power, Over Ter	mperature, RU Failed			

2. Remote Unit Technical Specification

Items	Testing Condition	Technical Specification				
		Downlink	Uplink			
RF Specifications						

All specifications are subject to change without notice.

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Website http://www.tspd.com.tw



Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity							
Output Power (Max.) Max Input without damage Morking in- Max Input RF level Min Input RF level Working in- Noise Figure Gain Adjustable Range/Step Working in- Gain Adjustable Error Ripple Working in- IMD3 ALC Working in- VSWR Working in- Time Delay Spurious Emission Optical Output Power Optical Loss Optical Loss Optical Connector Optical Max input power Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	band	138-174MHz					
Max Input without damage Max Input RF level Min Input RF level Working in- Noise Figure Working in- Gain Adjustable Range/Step Working in- Ripple Working in- IMD3 ALC Working in- VSWR Working in- Time Delay Spurious Emission Optical Output Power Optical Loss Optical Connector Optical Max input power Optical input power Working in- Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	band	4MHz					
Max Input RF level Working in- Min Input RF level Working in- Roise Figure Working in- Gain Adjustable Range/Step Working in- Gain Adjustable Error Working in- IMD3 ALC Working in- IMD3 ALC Working in- Time Delay Working in- Spurious Emission Optical Output Power Optical Loss Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	band	40±2dBm	-				
Min Input RF level Noise Figure Working in- Gain Adjustable Range/Step Working in- Gain Adjustable Error Working in- Ripple IMD3 ALC Working in- IMD3 ALC Working in- VSWR Working in- Time Delay Spurious Emission Optical Output Power Optical Loss Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	band		+10dBm				
Noise Figure Gain Adjustable Range/Step Working in- Gain Adjustable Error Working in- Ripple Working in- IMD3 ALC Working in- VSWR Working in- Time Delay Spurious Emission Optical Output Power Optical Loss Optical Loss Optical Connector Optical Max input power Optical input power Optical input power Optical input power Working in- Spurious Emission Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	band		-25dBm				
Gain Adjustable Range/Step Gain Adjustable Error Ripple Working in- Ripple Working in- Wor	band		-107dBm				
Gain Adjustable Error Working in- Ripple Working in- IMD3 ALC Working in- VSWR Working in- Time Delay Working in- Spurious Emission Optical Output Power Optical Loss Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	band		≤5dB				
Ripple Working in- IMD3 ALC Working in- VSWR Working in- Time Delay Working in- Spurious Emission Optical Output Power Optical length Optical Loss Optical Connector Optical Max input power Optical input power Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	band	≥25dB/1dB					
ALC Working in- VSWR Working in- Time Delay Working in- Spurious Emission Optical Output Power Optical length Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	-band Ga	Gain adjustable range is 0~20dB, error≤1dB; ≥21dB, error≤1.5dB					
ALC Working installed Working	band	≤3dB in ba	andwidth				
VSWR Working in- Time Delay Working in- Spurious Emission Optical Output Power Optical length Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity		≤-450	dBc				
Time Delay Working in- Spurious Emission Optical Output Power Optical length Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity		When adding ≤10dB at max. Output level, output variation ≤±2dB, When adding >10dB, output variation ≤±2dB or be off.					
Spurious Emission Optical Output Power Optical length Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	band	≤1.	.5				
Optical Output Power Optical length Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	band	≤1.0µs					
Optical length Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity		Complies with ETSI TS 101 789-1					
Optical length Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	Optical Specifications						
Optical Loss Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity		0~3d	Bm				
Optical Connector Optical Max input power Optical Min input power Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity		DL: 1310nm, UL: 1550nm					
Optical Max input power Optical Min input power Optical input power without damage Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	≤10	≤10dB /Includes the loss of the optical splitter					
Optical Min input power Optical input power without damage Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity		FC/APC X 1(WDM, one core)					
Optical input power without damage Power Supply Pomer Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity		+4dBm					
Power Su Power Su Power Su Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity		+0dBm					
Power Supply Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity		+10dBm					
Dimension Weight Max. Power Consumption Operating Temperature Operating Humidity	Power Supply and Mechanical Specifications						
Weight Max. Power Consumption Operating Temperature Operating Humidity		AC220V±60	V,45~55Hz				
Max. Power Consumption Operating Temperature Operating Humidity		590mm*370mm*220mm					
Operating Temperature Operating Humidity		30kg					
Operating Humidity		250W					
		-25~+55℃					
i		≤95%					
Environmental Class		IP55					
RF Connector		N-Female, 50ohm					
MTBF		≥50000 hours					
Monitor Interface		Local Monitor: Remote Monitor: RS232					
Alarm Type	No F	No Power, PA Failure, VSWR, Over Power, Over Temperature					

3.MOU+ROU Whole System Technical Specification

	Testing Condition	Technical Specification		Memo
Items		uplink	downlink	
Frequency Range	Working in-band	138-174MHz		
Max Bandwidth	Working in-band	4MHz		
Output Power(dBm)	Working in-band	0±2	40±2	Customized
ALC (dB)	Input add 10dB	∆Po≰±2		
Max Gain	Working in-band	55±3dB	55±3dB	with 0dB optic path loss
Gain Adjustable Range(dB)	Working in-band	≥30		
Gain Adjustable Linear	10dB	±1	1.0	



		Colditoria	for wireless signal
(dB)	20dB	±1.0	
	30dB	±1.5	
Ripple in Band(dB)	Effective Bandwidth	প্র	
Max.input level	Continue 1min	-10 dBm	
Transmission Delay(us)	Working in-band	\$	
Noise Figure (dB)	Working in-band	≤5 (Max.gain)	
IMD(dBc)	Working in-band	≤45	
Intermodulation Attenuation	9kHz∼1GHz	≤36dBm/100kHz	
	1GHz∼12.75GHz	≤30dBm/1MHz	
Port VSWR	BS Port	≤1.5	
	MS Port	≤1.5	