

1、Introduction

- Pico Repeater is applied specifically in small area indoor DAS system.
- Provide quick coverage solution for small signal weak & block zones,reduce drop/off calls.
- Compact size.low consumption,easy installation,great cover.
- Eliminate the signal dead spot, reject the interference, provide the stable signal

communication for cell phone users.

- High liner design, low interference to BTS
- ALC function design, It provide the high reliability and stability.
- provide power supply indication and output power indication

2. Application

Basements	Parking lots
Cars	High-speed trains
Border	Village
Elevators	Vessels
High-buildings	Tunnels
Countryside	Mines
Clubs	Underground facilities
Residential house	Villas

3. Electrical Specification

3.1 Uplink

item	Electric SPEC		unit	Note
Frequency range	1850-1910MHz	/	/	
Operating Bandwidth	1850-1910MHz	0-60M	MHz	客户定制
Maximum Output power		≤15	dBm	
ALC		$ \Delta \leq 2$	dB	
Maximum Gain		≥60	dB	

Gain Adjust Scope	1dB ~ 10dB	$ \Delta \leq 1$	dB	
	10dB ~ 20dB	$ \Delta \leq 1$	dB	
	20dB ~ 25dB	$ \Delta \leq 1.5$	dB	
IM3		$\leq -30/30\text{kHz}$	dBc	
Ripple in band		≤ 6	dB	
			dB	
带外抑制	Fo+/-400kHz	≤ 50	dB	
	Fo+/-600kHz	≤ 40	dB	
	Fo+/-1MHz	≤ 35	dB	
	Fo+/-5MHz	≤ 25	dB	
Spurious Emission	9kHz ~ 150kHz	$\leq -36/1\text{kHz}$	dBm	
	150kHz ~ 30MHz	$\leq -36/10\text{kHz}$		
	30MHz ~ 1GHz	$\leq -36/100\text{kHz}$		
	1GHz ~ 12.75GHz	$\leq -25/1\text{MHz}$		
VSWR		≤ 2	/	
Noise Figure at Max. System Gain		≤ 8	dB	
System Group Delay		≤ 5.5	μs	
Frequency Stability		$\leq 0.05\text{ppm}$	Hz	

3.2 Downlink

item	Electric SPEC		unit	Note
Frequency range	1930-1990MHz	/	/	
Operating Bandwidth	1930-1990MHz	0-60M	MHz	客户订制
Maximum Output power		≤ 15	dBm	
ALC		$ \Delta \leq 2$	dB	
Maximum Gain		≤ 60	dB	
Gain Adjust	1dB ~ 10dB	$ \Delta \leq 1$	dB	

Scope	10dB ~ 20dB	$ \Delta \leq 1$	dB	
	20dB ~ 25dB	$ \Delta \leq 1.5$	dB	
IM3		$\leq -30/30\text{kHz}$	dBc	
Ripple in band		≤ 7	dB	
帶外抑制	Fo+ /-400kHz	≤ 50	dB	
	Fo+ /-600kHz	≤ 40		
	Fo+ /-1MHz	≤ 35		
	Fo+ /-5MHz	≤ 25		
Spurious Emission	9kHz ~ 150kHz	$\leq -36/1\text{kHz}$	dBm	
	150kHz ~ 30MHz	$\leq -36/10\text{kHz}$		
	30MHz ~ 1GHz	$\leq -36/100\text{kHz}$		
	1GHz ~ 12.75GHz	$\leq -25/1\text{MHz}$		
VSWR		≤ 2	/	
Noise Figure at Max. System Gain		≤ 8	dB	
System Group Delay		≤ 5	μs	
Frequency Stability		$\leq 0.05\text{ppm}$	Hz	

3.3 Mechanical Characteristic

Mechanical Characteristic	
Connectors	N-female
Power Supply	DC6V 3A, AC 110~240V
Operating Temperature	-10°C~+50°C
Humidity	90%
Power Consumption	$\leq 10\text{W max}$
Dimension(D*W*H)	146*104*25(mm)
weight	$\leq 1\text{g}$

Note : 1. Typical specifications at room temperature.

2. VSWR Test Condition is Uplink and downlink ATT setting 25dB

4. LED FUNCTION INDICATION

LED	Function	Working mode	Judgement of failure
Red Light	Warning	Red LED is off which means the machine is working normal	Connect with power supply, LED is on while there is no conversation, which means autoexcitation warning or loos of lock
Green Light	Indication for power supply	LED is flickering which means it's working normal	LED if off, which means the power supply is not working normal.

5. Machine Dimensions

