



STR800 Series – TETRA Channel Selective RF Repeater

TETRA RF Repeater is used to extend the coverage area for both outdoor and indoor environment by picking up the signal through donor antenna, then amplifier and broadcast to the serving area by serving antenna(s). Sunny STR800 Series – TETRA Channel Selective RF Repeater provides wide range of configurations to address different customer requirements. With supporting maximum 8 TETRA channels selected by user.

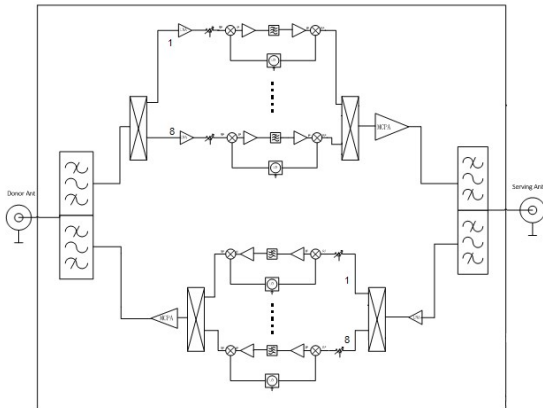
Model: STR800-806'825/851'870-RP-XC

Where X is 2, 4, 8 channels

Highlight

- Comply ETSI standard with CE certificate
- Support up to 8 TETRA channels
- Support up to 93dB Gain
- Optional remote alarm/control/monitoring/statistics by ethernet or sms
- Optional different kinds of redundancy configuration

System Block Diagram



System Outlook

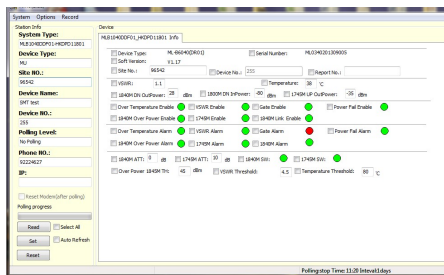


Wall mount

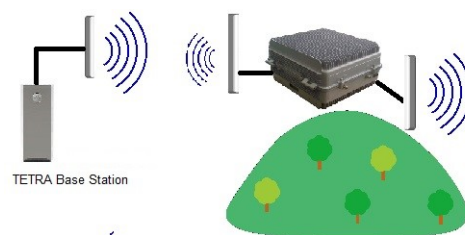


Rack mount

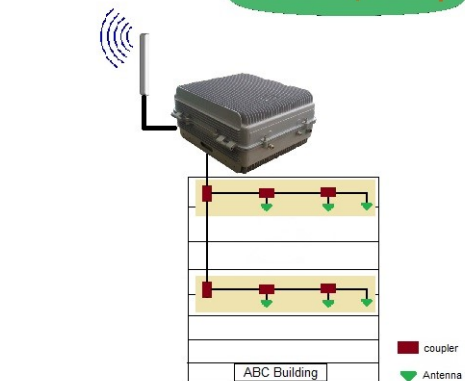
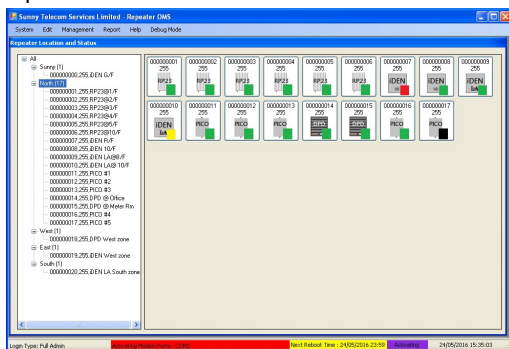
Remote Software



Application Example



Option: SUN-OMS





Electrical Specification

Items	Uplink	Downlink
Frequency Range	806-825MHz*	851-870MHz*
Number of Channels	2, 4, 8	
Channel frequency	25kHz per channel**	
Output Power Per Channel	2 Channels	34±2dBm
	4 Channels	31±2dBm
	8 Channels	28±2dBm
Max. Gain (1dB per step)	60 to 90±3dB	
Intermodulation attenuation	≤ -60dBc @ 2 x 34dBm	
Third order intercept	≥ +58dBm @ 2 x 24dBm	≥ +68dBm @ 2 x 34dBm
Max. Input without damage	≤ -10dBm	
Input Sensitivity	2 Channels	≥ -97dBm
	4 Channels	≥ -94dBm
	8 Channels	≥ -91dBm
ALC / AGC	△Po≤±1 dBm / range 0~20dB	
Spurious emissions from RF Port	≤ -36dBm@9kHz~1GHz ; ≤ -30dBm@1GHz~12.75GHz	
Time Delay	≤12us	
Noise Figure	≤5dB at maximum gain	
VSWR	1.5	
Compliance	Radio: ETSI TS101 789, EN300 392, EN300 394, EN303 035 EMC: EN301 489, Safety: EN60950, Health: EN 50385	

* The user can pre-select the frequency range from 200kHz to full band during ordering stage

** User is not allowed to select ±2 channels of the selected channel

Power Supply and Mechanical Specification

RF Connector	N-Female/50ohm [^]
Operating Temperature	-25°C ~+55°C
Relative Humidity	Max. 95%
MTBF	Min. 100000 hours
Power Supply	230VAC, 50/60Hz OR -48V DC (option STR800-DC)
Maximum power Consumption	≤350W
Cooling	Natural cooling for wall mount, FAN cooling for rack mount
Heat Dissipation	≤170W for wall mount
Cabinet Environment Rating	IP65 for wall mount, IP20 for rack mount
Local LED	Power – GREEN, Alarm – RED
Alarm types	No AC Power, Over Temperature, Module Failure, VSWR, Over RF Downlink Power, Low RF Downlink Power, Door Open
Remote Control Module	RS232/USB (Standard) Wireless Modem (option STR800-RFM, STR800-WD) Ethernet (option STR800-ETH)
Dimensions	550x460x235mm (wall mount) OR 4U, 19" rack mount, 500mm depth (option: STR800-RACK)
Weight	N.W.33.5kg, G.W.36kg

[^] User predefine Simplex or Duplex configuration for I/P and O/P ports during ordering stage

Ordering Information:

Model: STR800-806'825/851'870-RP-XC	1. Confirm Nos of Channel - 2, 4, 8
Options	STR800-RFM: Sunny Remote Control by RF Modem (SMS) ² STR800-WD: Sunny Remote Control by RF Modem (wireless data) ² (Fixed IP needed) STR800-ETH: Sunny Remote Control by Ethernet ² SUN-OMS: Sunny Remote Control Software (Network management software) STR800-TP: With Downlink and Uplink -30dB test ports outside the cabinet STR800-RL: With 2 relay input and 2 relay output as external alarm (dry contact) STR800-UPS: Sunny Uninterruptible Power Supply STR800-DC: Using -48VDC as power supply input STR800-RACK: Rack mount cabinet with FAN cooling STR800-HSPSU: Sunny Hot Standby Power Supply Unit ¹ STR800-HSWU: Sunny Hot Standby Whole Unit ¹ ^{1 & 2} need to order together with main unit, ^{1, 2} order either option only

Technical data are subjected to change without notice – File: STR800-806'825/851'870-RP-XC datasheet 2020V1.1