



SUNNY VHF Line Amplifier

Model : STR400-VLA-F1'F2/F3'F4-P

Where

P : Downlink Max. Output power 33, 37, 40, 43dBm

F1-F2 and F3-F4 are within 110-175MHz

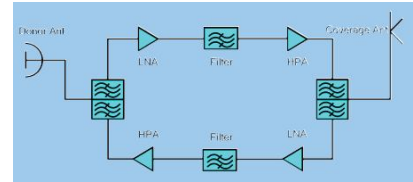
F1-F2 and F3-F4 is 0.2 to 5MHz

F3-F2 $\geq$ 5MHz

Product Highlight

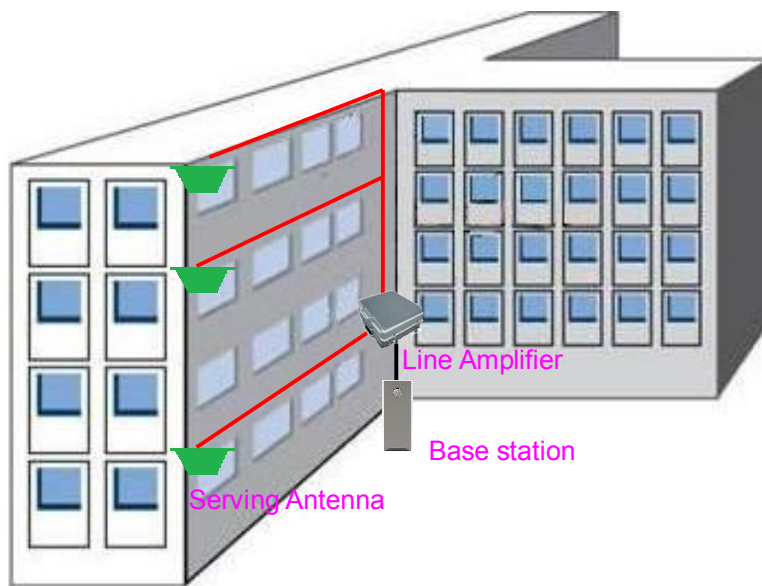
- Support VHF frequency range
- Compensate cable loss in Distribution Antenna System (DAS)
- Simple plug and play
- HKTA 1002 Compliance
- Option remote control by Ethernet or RF modem
- Option outdoor cabinet

Typical Configuration:



system block diagram

standard cabinet



Tunnel



Indoor Sites



Stadium



Land to Land



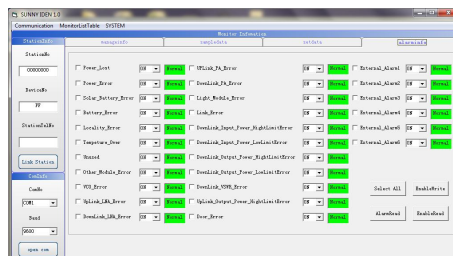


Specifications

Frequency Range	Uplink	Downlink			
	F1-F2MHz	F3-F4MHz			
Output Power	0±1dBm	+33±1dBm	+37±1dBm	+40±1dBm	+43±1dBm
Gain	45dB	45dB			50dB
Gain Adjustable Range	≥30dB@1dB per step				
Gain Control Precision	±1.5dB				
Pass Band Ripple	≤3.0dB				
Frequency Error	≤0.05ppm				
Frequency Deviation	≤±2.5kHz				
Noise Figure	≤5dB				
Transmission Delay	≤1μS				
Maximum Input	0dBm				
VSWR	≤1.5				
I/O Impedance	50Ω/N connector				
Ambient Temperature	-15℃-55℃				
Ambient Humidity	≤95%(no dew)				
Power Supply	100-250VAC 45-60Hz				
Panel Display (LED)	Standard Indoor Cabinet - Power, uplink, downlink and alarm indicators Option Outdoor Cabinet (Option SUN-OC) - Power				
Remote Control	Remote control/monitor/alarm by 1) RF Modem (Option SUN-RFM), or 2) Ethernet (Option SUN-ETH)				
Size and Weight	Standard Indoor Cabinet – 530x310x190mm, ≤20kg Option Outdoor Cabinet (Option SUN-OC) - 500x440x230mm, ≤30kg				



SUN-OC



Local Control Software

Ordering Information:

STR400-VLA-F1'F2/F3'F4-P : confirm uplink and downlink frequency and maximum output power when place order.

Options:

SUN-OC: Outdoor Cabinet

SUN-RFM: Remote control by RF Modem (SMS)

SUN-ETH: Remote control by Ethernet

Technical data are subjected to change without notice – File: STR400-VLA-F1'F2/F3'F4-P datasheet 2016V1.0



SUNNY VHF Repeater

Model : STR400-VRP-F1'F2/F3'F4-P

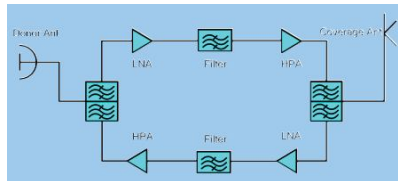
Where

P : Downlink Max. Output power 33, 37, 40, 43dBm

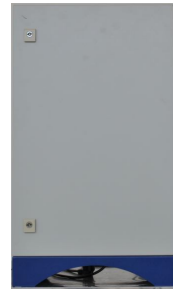
VHF : F1-F2 and F3-F4 are within 110-175MHz

F1-F2 and F3-F4 is 0.2 to 5MHz

F3-F2 $\geq$ 5MHz



system block diagram

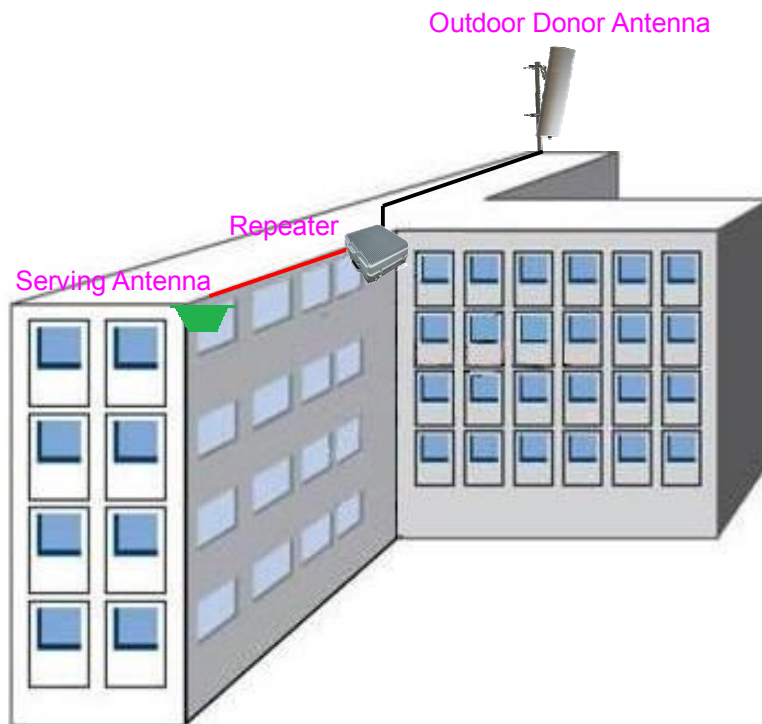


standard cabinet

Product Highlight

- Support VHF frequency range
- Simple plug and play
- HKTA 1002 Compliance
- Option remote control by Ethernet or RF modem
- Option outdoor cabinet

Typical Configuration:



Tunnel



Indoor Sites



Stadium





Specifications

Frequency Range	Uplink	F1-F2MHz			
	Downlink	F3-F4MHz			
Output Power	Uplink	+33±1dBm	+33±1dBm	+37±1dBm	+37±1dBm
	Downlink	+33±1dBm	+37±1dBm	+40±1dBm	+43±1dBm
Gain	Uplink	90dB	90dB	95dB	95dB
	Downlink	90dB	90dB	95dB	95dB
Gain Adjustable Range	≥30dB@1dB per step				
Gain Control Precision	±1.5dB				
Pass Band Ripple	≤3.0dB				
Frequency Error	≤0.05ppm				
Frequency Deviation	≤±2.5kHz				
Noise Figure	≤5dB				
Maximum Input	0dBm				
VSWR	≤1.5				
I/O Impedance	50Ω/N connector				
Ambient Temperature	-15°C-55°C				
Ambient Humidity	≤95%(no dew)				
Power Supply	100-250VAC 45-60Hz				
Panel Display (LED)	Standard Indoor Cabinet - Power, uplink, downlink and alarm indicators Option Outdoor Cabinet (Option SUN-OC) - Power				
Remote Control	Remote control/monitor/alarm by RF Modem (Option SUN-RFM), or 2) Ethernet (Option SUN-ETH)				
Size and Weight	Standard Indoor Cabinet – 530x310x190mm, ≤20kg Option Outdoor Cabinet (Option SUN-OC) - 500x440x230mm, ≤30kg				



SUN-OC



Local Control Software

Ordering Information:

STR400-VRP-F1'F2/F3'F4-P : confirm uplink and downlink frequency and maximum output power when place order.

Options:

SUN-OC: Outdoor Cabinet

SUN-RFM: Remote control by RF Modem (SMS)

SUN-ETH: Remote control by Ethernet

Technical data are subjected to change without notice – File: STR400-VRP-F1'F2/F3'F4-P datasheet 2016V1.0



SUNNY VHF Optical Line Amplifier

Model : STR400-VMU/RU-F1'F2/F3'F4-P

Where

P : Downlink Max. Output power 33, 37, 40, 43dBm

F1-F2 and F3-F4 are within 110-175MHz

F1-F2 and F3-F4 is 0.2 to 5MHz

F3-F2 $\geq$ 5MHz



Master Unit

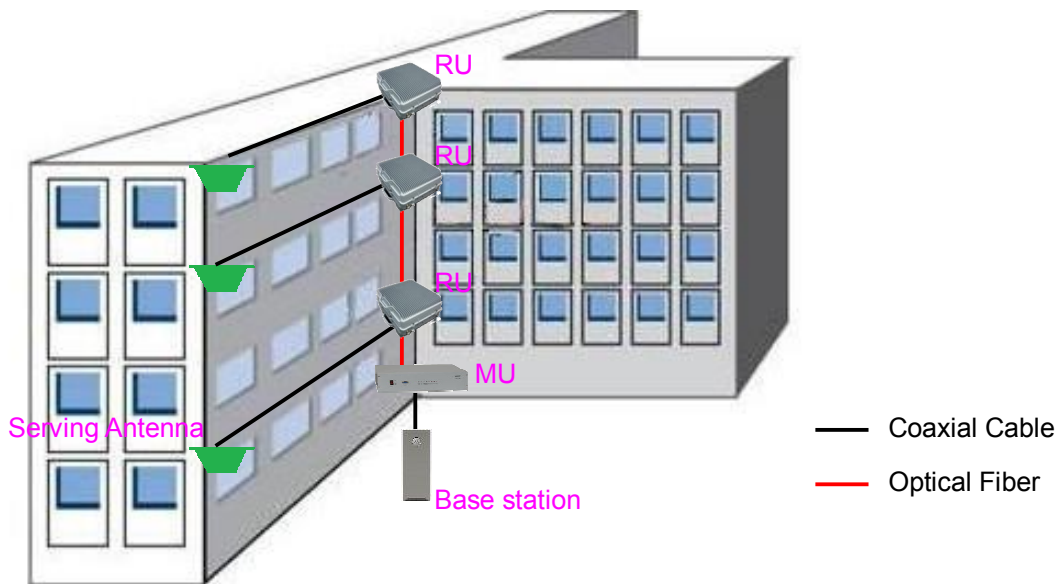


Remote Unit (RU)

Product Highlight

- Support VHF frequency range
- Compensate cable loss in Distribution Antenna System (DAS)
- Simple plug and play
- HKTA 1002 Compliance
- Option remote control by Ethernet or RF modem
- Option outdoor cabinet

Typical Configuration:



Tunnel



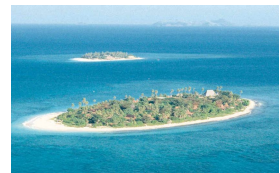
Indoor Sites



Stadium



Land to Land





Specifications

Frequency Range	Uplink	Downlink			
	F1-F2MHz	F3-F4MHz			
Output Power	0±1dBm	+33±1dBm	+37±1dBm	+40±1dBm	+43±1dBm
Gain	45dB	45dB			50dB
Gain Adjustable Range	≥30dB@1dB per step				
Gain Control Precision	±1.5dB				
Pass Band Ripple	≤3.0dB				
Frequency Error	≤0.05ppm				
Frequency Deviation	≤±2.5kHz				
Noise Figure	≤5dB				
Transmission Delay	≤1μS				
Maximum Input	0dBm				
VSWR	≤1.5				
I/O Impedance	50Ω/N connector				
Ambient Temperature	-15℃-55℃				
Ambient Humidity	≤95%(no dew)				
Power Supply	100-250VAC 45-60Hz				
Panel Display (LED)	Standard Indoor Cabinet - Power, uplink, downlink and alarm indicators Option Outdoor Cabinet (Option SUN-OC) - Power				
Remote Control	Remote control/monitor/alarm by 1) RF Modem (Option SUN-RFM), or 2) Ethernet (Option SUN-ETH)				

Optical Specifications

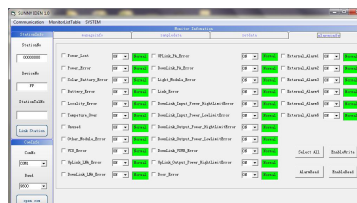
Optical Output Power	0~3dBm
Optical length	DL: 1310nm, UL: 1550nm
Optical Loss	≤10dB /Includes the loss of the optical splitter
Optical Connector	FC/APC

Power Supply and Mechanical Specifications

Model	SUN-MU-VHF-XX	SUN-RU-VHF-XX
Power Supply	AC220V±60V,45~55Hz	
Dimension	435x312x90mm	Standard Indoor Cabinet – 530x310x190mm Option Outdoor Cabinet (Option SUN-OC) - 500x440x230mm
Weight	≤8kg	Standard Indoor Cabinet ≤20kg Option SUN-OC ≤30kg
Max. Power Consumption	≤40W	≤300W
Operating Temperature	-5~+45°C	-25~+55°C
Operating Humidity	≤85%	≤95%
Environmental Class	IP20	Option SUN-OC - IP65
RF Connector	N-Female, 50ohm	
MTBF	≥50000 hours	



SUN-OC



Local Control Software

Ordering Information:

STR400-VMU(Y)-F1'F2/F3'F4-P : confirm frequency and output power when place order, Y is Nos of VRU supported by single VMU.

STR400-VRU(Y)-F1'F2/F3'F4-P: confirm frequency and output power when place order.

Options:

SUN-OC: Outdoor Cabinet

SUN-RFM: Remote control by RF Modem (SMS)

SUN-ETH: Remote control by Ethernet

Technical data are subjected to change without notice – File: STR400-VMU/RU-F1'F2/F3'F4-P datasheet 2016V1.0



SUNNY UHF Line Amplifier

Model : STR400-ULA-F1'F2/F3'F4-P

Where

P: Downlink Max. Output power 33, 37, 40, 43dBm

F1-F2 and F3-F4 are within 350-550MHz

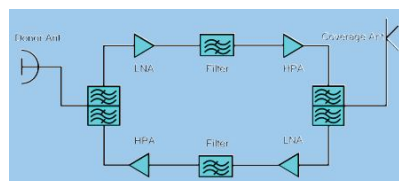
F1-F2 and F3-F4 is 0.2 to 5MHz

F3-F2 $\geq$ 5MHz

Product Highlight

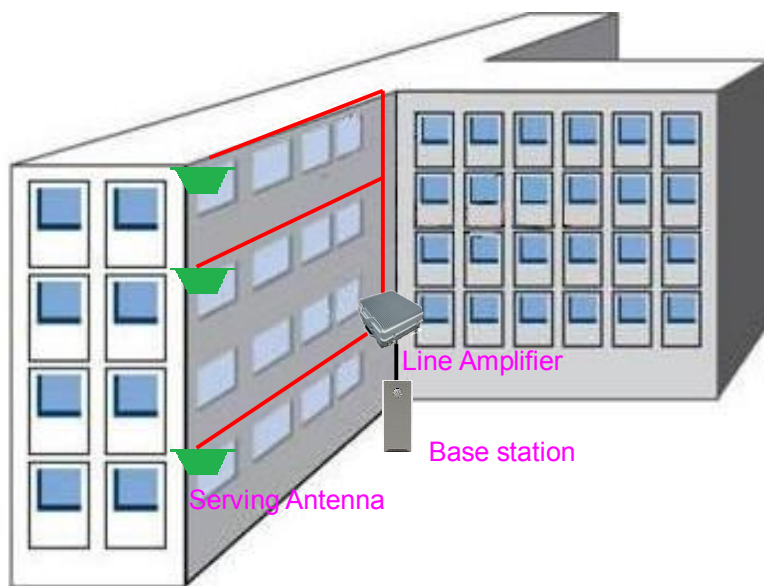
- Support UHF frequency range
- Compensate cable loss in Distribution Antenna System (DAS)
- Simple plug and play
- HKTA 1002 Compliance
- Option remote control by Ethernet or RF modem
- Option outdoor cabinet

Typical Configuration:



system block diagram

standard cabinet



Tunnel



Indoor Sites



Stadium



Land to Land



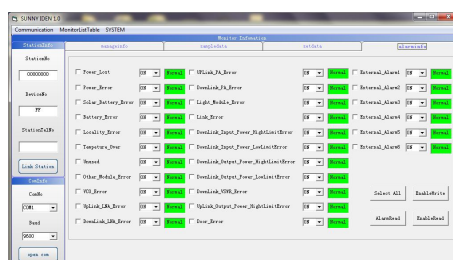


Specifications

Frequency Range	Uplink	Downlink			
	F1-F2MHz	F3-F4MHz			
Output Power	0±1dBm	+33±1dBm	+37±1dBm	+40±1dBm	+43±1dBm
Gain	45dB	45dB			50dB
Gain Adjustable Range	≥30dB@1dB per step				
Gain Control Precision	±1.5dB				
Pass Band Ripple	≤3.0dB				
Frequency Error	≤0.05ppm				
Frequency Deviation	≤±2.5kHz				
Noise Figure	≤5dB				
Transmission Delay	≤1μS				
Maximum Input	0dBm				
VSWR	≤1.5				
I/O Impedance	50Ω/N connector				
Ambient Temperature	-15℃-55℃				
Ambient Humidity	≤95%(no dew)				
Power Supply	100-250VAC 45-60Hz				
Panel Display (LED)	Standard Indoor Cabinet - Power, uplink, downlink and alarm indicators Option Outdoor Cabinet (Option SUN-OC) - Power				
Remote Control	Remote control/monitor/alarm by 1) RF Modem (Option SUN-RFM), or 2) Ethernet (Option SUN-ETH)				
Size and Weight	Standard Indoor Cabinet – 530x310x190mm, ≤20kg Option Outdoor Cabinet (Option SUN-OC) - 500x440x230mm, ≤30kg				



SUN-OC



Local Control Software

Ordering Information:

STR400-ULA-F1'F2/F3'F4-P: confirm uplink and downlink frequency and maximum output power when place order.

Options:

SUN-OC: Outdoor Cabinet

SUN-RFM: Remote control by RF Modem (SMS)

SUN-ETH: Remote control by Ethernet

Technical data are subjected to change without notice – File: STR400-ULA-F1'F2/F3'F4-P datasheet 2016V1.0



SUNNY UHF Repeater

Model : STR400-URP-F1'F2/F3'F4-P

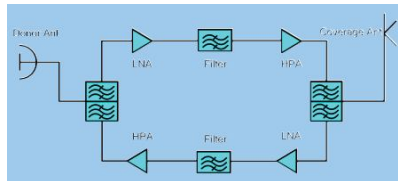
Where

P : Downlink Max. Output power 33, 37, 40, 43dBm

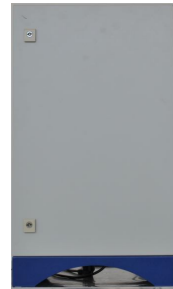
UHF : F1-F2 and F3-F4 are within 350-550MHz

F1-F2 and F3-F4 is 0.2 to 5MHz

F3-F2 $\geq$ 5MHz



system block diagram

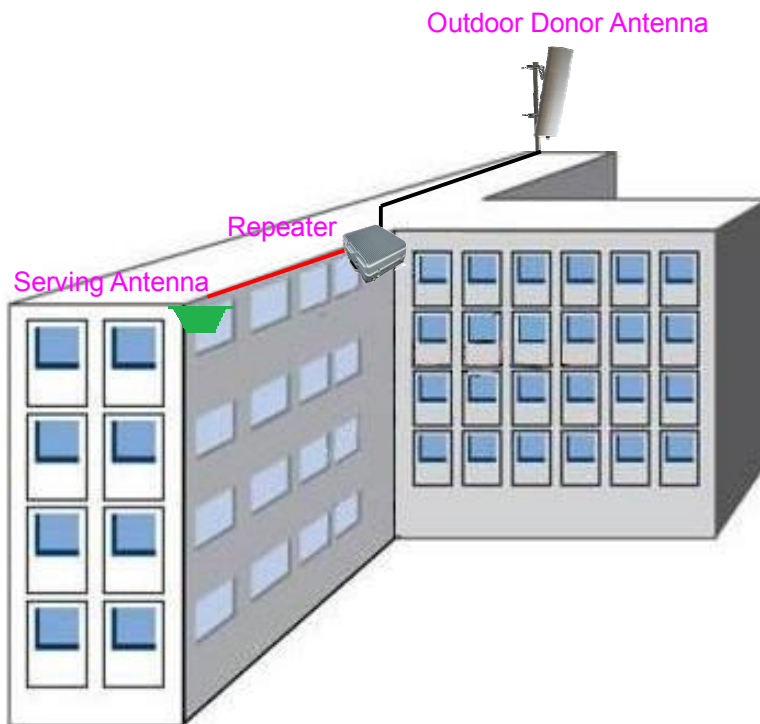


standard cabinet

Product Highlight

- Support UHF frequency range
- Simple plug and play
- HKTA 1002 Compliance
- Option remote control by Ethernet or RF modem
- Option outdoor cabinet

Typical Configuration:



Tunnel



Indoor Sites



Stadium



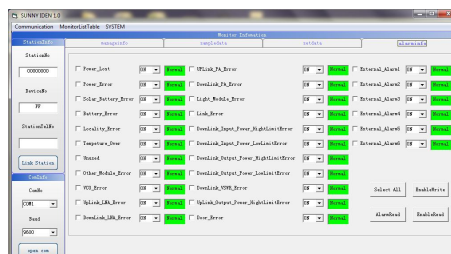


Specifications

Frequency Range	Uplink	F1-F2MHz			
	Downlink	F3-F4MHz			
Output Power	Uplink	+33±1dBm	+33±1dBm	+37±1dBm	+37±1dBm
	Downlink	+33±1dBm	+37±1dBm	+40±1dBm	+43±1dBm
Gain	Uplink	90dB	90dB	95dB	95dB
	Downlink	90dB	90dB	95dB	95dB
Gain Adjustable Range	≥30dB@1dB per step				
Gain Control Precision	±1.5dB				
Pass Band Ripple	≤3.0dB				
Frequency Error	≤0.05ppm				
Frequency Deviation	≤±2.5kHz				
Noise Figure	≤5dB				
Maximum Input	0dBm				
VSWR	≤1.5				
I/O Impedance	50Ω/N connector				
Ambient Temperature	-15°C-55°C				
Ambient Humidity	≤95%(no dew)				
Power Supply	100-250VAC 45-60Hz				
Panel Display (LED)	Standard Indoor Cabinet - Power, uplink, downlink and alarm indicators Option Outdoor Cabinet (Option SUN-OC) - Power				
Remote Control	Remote control/monitor/alarm by RF Modem (Option SUN-RFM), or 2) Ethernet (Option SUN-ETH)				
Size and Weight	Standard Indoor Cabinet – 530x310x190mm, ≤20kg Option Outdoor Cabinet (Option SUN-OC) - 500x440x230mm, ≤30kg				



SUN-OC



Local Control Software

Ordering Information:

STR400-URP-F1'F2/F3'F4-P : confirm uplink and downlink frequency and maximum output power when place order.

Options:

SUN-OC: Outdoor Cabinet

SUN-RFM: Remote control by RF Modem (SMS)

SUN-ETH: Remote control by Ethernet

Technical data are subjected to change without notice – File: STR400-URP-F1'F2/F3'F4-P datasheet 2016V1.0



Pack SUNNY UHF Optical Line Amplifier

Model : STR400-UMU/RU-F1'F2/F3'F4-P

Where

P : Downlink Max. Output power 33, 37, 40, 43dBm

F1-F2 and F3-F4 are within 350-550MHz

F1-F2 and F3-F4 is 0.2 to 5MHz

F3-F2 $\geq$ 5MHz



Master Unit (MU)

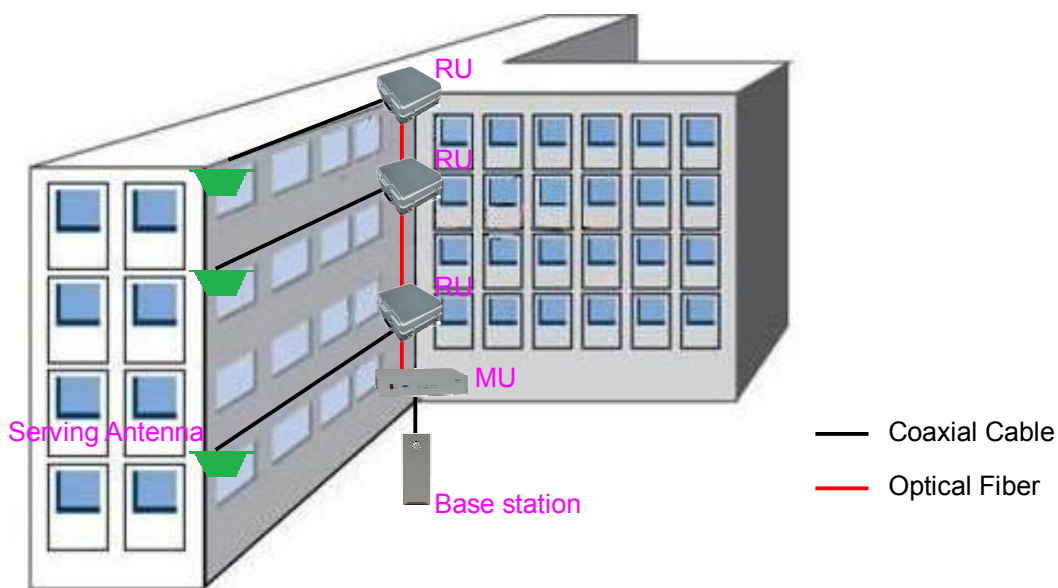
Product Highlight

- Support UHF frequency range
- Compensate cable loss in Distribution Antenna System (DAS)
- Simple plug and play
- HKTA 1002 Compliance
- Option remote control by Ethernet or RF modem
- Option outdoor cabinet

Typical Configuration:



Remote Unit (RU)



Tunnel



Indoor Sites



Stadium



Land to Land





Specifications

Frequency Range	Uplink	Downlink			
	F1-F2MHz	F3-F4MHz			
Output Power	0±1dBm	+33±1dBm	+37±1dBm	+40±1dBm	+43±1dBm
Gain	45dB	45dB			50dB
Gain Adjustable Range	≥30dB@1dB per step				
Gain Control Precision	±1.5dB				
Pass Band Ripple	≤3.0dB				
Frequency Error	≤0.05ppm				
Frequency Deviation	≤±2.5kHz				
Noise Figure	≤5dB				
Transmission Delay	≤1μS				
Maximum Input	0dBm				
VSWR	≤1.5				
I/O Impedance	50Ω/N connector				
Ambient Temperature	-15℃-55℃				
Ambient Humidity	≤95%(no dew)				
Power Supply	100-250VAC 45-60Hz				
Panel Display (LED)	Standard Indoor Cabinet - Power, uplink, downlink and alarm indicators Option Outdoor Cabinet (Option SUN-OC) - Power				
Remote Control	Remote control/monitor/alarm by 1) RF Modem (Option SUN-RFM), or 2) Ethernet (Option SUN-ETH)				

Optical Specifications

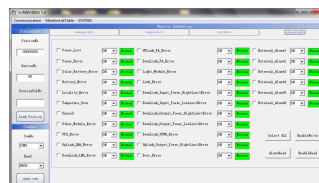
Optical Output Power	0~3dBm
Optical length	DL: 1310nm, UL: 1550nm
Optical Loss	≤10dB /Includes the loss of the optical splitter
Optical Connector	FC/APC

Power Supply and Mechanical Specifications

Model	SUN-MU-UHF-XX	SUN-RU-UHF-XX
Power Supply	AC220V±60V,45~55Hz	
Dimension	435x312x90mm	Standard Indoor Cabinet – 530x310x190mm Option Outdoor Cabinet (Option SUN-OC) - 500x440x230mm
Weight	≤8kg	Standard Indoor Cabinet ≤20kg Option SUN-OC ≤30kg
Max. Power Consumption	≤40W	≤300W
Operating Temperature	-5~+45°C	-25~+55°C
Operating Humidity	≤85%	≤95%
Environmental Class	IP20	Option SUN-OC - IP65
RF Connector	N-Female, 50ohm	
MTBF	≥50000 hours	



SUN-OC



Local Control Software

Ordering Information:

SUN-UMU(Y)- F1'F2/F3'F4-P: confirm frequency and output power when place order, Y is Nos of URU supported by single UMU

SUN-URU- F1'F2/F3'F4-P: confirm frequency and output power when place order.

Options:

SUN-OC: Outdoor Cabinet

SUN-RFM: Remote control by RF Modem (SMS)

SUN-ETH: Remote control by Ethernet

Technical data are subjected to change without notice – File: STR400-UMU/RU-F1'F2/F3'F4-P datasheet 2016V1.0