



Trinity-323 TDD Redundancy

Product Application

- Hotstand-by for any Microwave connection up to 25 km
- Extended Microwave Range during rough conditions
- Ultra-High reliability for critical connections

About Trinity-323 TDD Redundancy

Our unique Repeatit Anti-Loop and Ring Protection feature are what makes the Trinity-323 TDD Redundancy special. This allows a Network operator to access the Trinity-323 TDD Redundancy link through the management port to enable Ethernet Bridge Mode without the risk of creating a network loop even when the microwave link had a complete hardware or power outage.

The Trinity-323 TDD Redundancy is a Full-Outdoor Wireless Link operating in the 3 or 5 GHz bands providing up to 245 Mbps for distances up to 25 km. It is the ideal solution to create a wireless redundancy for any Microwave connection.

By connecting Trinity-323 TDD Redundancy directly with any microwave link, gives the microwave link a 100% bandwidth redundancy in case of the weather conditions are getting too rough for the microwave link or a Line-of-Sight issue occurs temporarily (e.g. like a crane moving in the LoS).

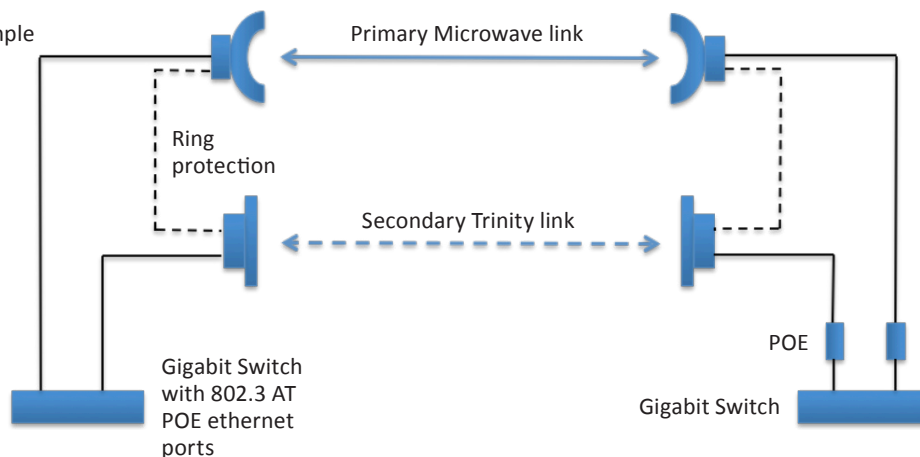
These features combined with additional extensive Carrier Class features like e.g. Multi-Link Synchronization for dense installations and the best price-performance ratio in the market, turn the Trinity-323 TDD Redundancy into a perfect solution for any Microwave network with the need for high reliability and availability.

Product Highlights

- 245 Mbps aggregated net throughput up to 25 km distance
- 2 integrated Gigabit Ethernet Ports
- Repeatit Anti-Loop & Ring Protection Feature
- 3.35-3.75 GHz and 5.150-5.845 GHz
- IP67 Full-Outdoor Housing
- Integrated 23 dBi Dual Pol Antenna
- TDD Synchronization for dense Installations
- Easy alignment with LED & Alignment Sound
- Four QoS traffic classes & VLAN Support
- Variety of channel widths: 5/10/20/40 MHz
- Free of Charge Repeatit Cloud Network Management



Configuration example



Trinity-323TDD Plus

Radio

Frequency Bands	5.150–5.845 GHz
Channel widths supported	5/10/20/40 MHz
Capacity	Trinity-323TDD Plus: 245 Mbps
Duplex Technique	TDD
Modulation	OFDM, PSK/QPSK/16QAM/64QAM
Max Tx Power	23 dBm
Max Rx sensitivity	-97 dBm
Error Correction	FEC; k=1/2,2/3,3/4, 5/6
Encryption	128 bit AES & MAC level Authentication
Surge Protection	15kV
Antenna Protection	Internal DC Grounding
DFS	Yes
QoS	Four Access Categories (AC) Voice, Video, Best Effort, and Background Traffic classification according to WMM
Bandwidth control	Yes

Inbuilt Antenna

Gain, typ.	24 ± 1 dBi
VSWR	1.7 : 1
3 dB Beam-Width, H-Plane, typ.	7°-9°
3 dB Beam-Width, E-Plane, typ.	7°-9°
Polarization	Dual, Vertical and Horizontal Dual slant if mounted plus/minus 45°
F/B Ratio	ETSI, TS3, TS4, TS5
Cross Polarization, max	-25 dB
Port to Port Isolation	-30 dB

Ethernet Interface

Type	10/100/1000 BaseT Interface with Auto-negotiation (IEEE 802.3), Manual Repeatit Anti-Loop and Ring Protection feature
Number of Ethernet Ports	2
Framing/Coding	IEEE 802.3u
Traffic Handling	MAC layer bridging, self-learning 802.1q transparent
Data Latency	2-4ms (3ms typical)
Packets/second	> 40 000
VLAN ID for Management	Supported
Power over Ethernet	48V DC, 802.3af, <6W typical
Connector	RJ-45

Management

Link Management	Web interface
Protocol	SNMP
NMS Application	Repeatit Cloud Network RCS Management Service
Tools in web interface	Spectrum Analyser Speed Test

Environment

IP Code	IP67
Temperature	-40° / +55° C
Size	370 x 370 x 95 mm
Weight per unit	4 Kg

Distance	Trinity-323TDD Plus
< 1 km	245 Mbit
2 km	243 Mbit
3 km	242 Mbit
4 km	240 Mbit
5 km	193 Mbit
6 km	192 Mbit
7 km	128 Mbit
8 km	128 Mbit
9 km	127 Mbit
10 km	127 Mbit
15 km	83 Mbit

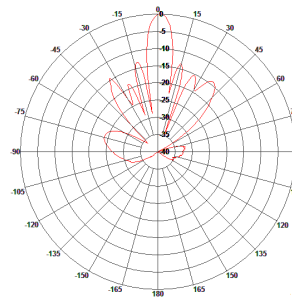
Throughput UDP, 30dB max ETSI EIRP, 6dB margin

Radiations Patterns

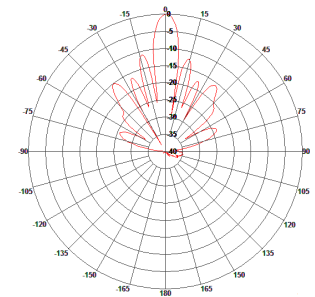
Frequency 5300 MHz
Gain, typ. 24 ± 1 dBi

Vertical Polarization

E-Plane Pattern

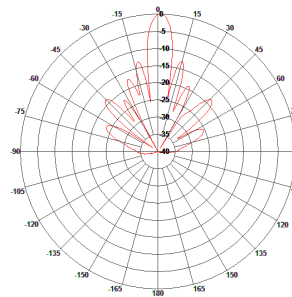


H-Plane Pattern



Horizontal Polarization

E-Plane Pattern



H-Plane Pattern

