

Ideas grow where people are YOUNCTA!

YOUNCTA is a company where tradition meets innovation. It was born from the union of MICRAN, a Russian Research and Production Company, leader in microwave communications and a group of Italian engineers.

Our solid know-how on microwave communications, gained in years of professional experience in international companies such as Telettra, Siemens and Alcatel is one of the pillars upon which the company is founded.

In addition to that, we believe that tradition needs to be melted with other technologies, such as Ethernet, IP, Security, nLOS and more.

The mission of Youncta is to be a reliable reference for customers, distributors and system integrators. We are currently working on exciting "future-proof" products and services for the coming years. In Youncta we believe that industrial and consumer worlds will become seamlessly integrated: this is where Youncta will try to anticipate competition.



youncta
MICRAN COMPANY

Y-Packet

Y-packet is the high capacity packet full-outdoor platform, realized to meet the requirements of WISP, ISP and Corporate markets alike. Y-Packet has been developed with an aim to be easy to install, inter-operable with other equipment in the network, and easily integrated with third parties Network Management Systems.



State-of-the Art Systems

Y-Packet supports state of art technologies, such as XPIC jointly with Layer One Aggregation and Adaptive Modulation from QPSK to 1024QAM. It provides capacity up to 840 Mbps at 56 MHz bandwidth within a frequency ranges from 6 GHz to 38 GHz.

Low cost of ownership

The full outdoor configuration of Y-Packet requires only 35 W of power consumption, resulting into a 26 dBm of output power. The build-in digital pre-distorter and the high output power allow the usage of small antennas, reducing consequently the rental costs of telecom towers due to reduced footprint.

Perfect management and security

The new network management system Y-NMS provides live monitoring of both individual station and the entire transport network from a remote location. Y-NMS provides a support for integrating SNMP v1/v2/v3 third party devices. Y-Packet can be managed over secure protocols such as HTTPS and SSH and users can be authenticated and authorized over RADIUS. Y-Packet is IPv6 ready.



Y-Haul

Y-Haul is a modern generation of UHF/VHF point-to-point wireless communication system. It allows transmission of TDM and Ethernet data over incredible long-range distances. Y-Haul represents the affordable option for large coverage than satellite link.



Up to 100 km over one hop

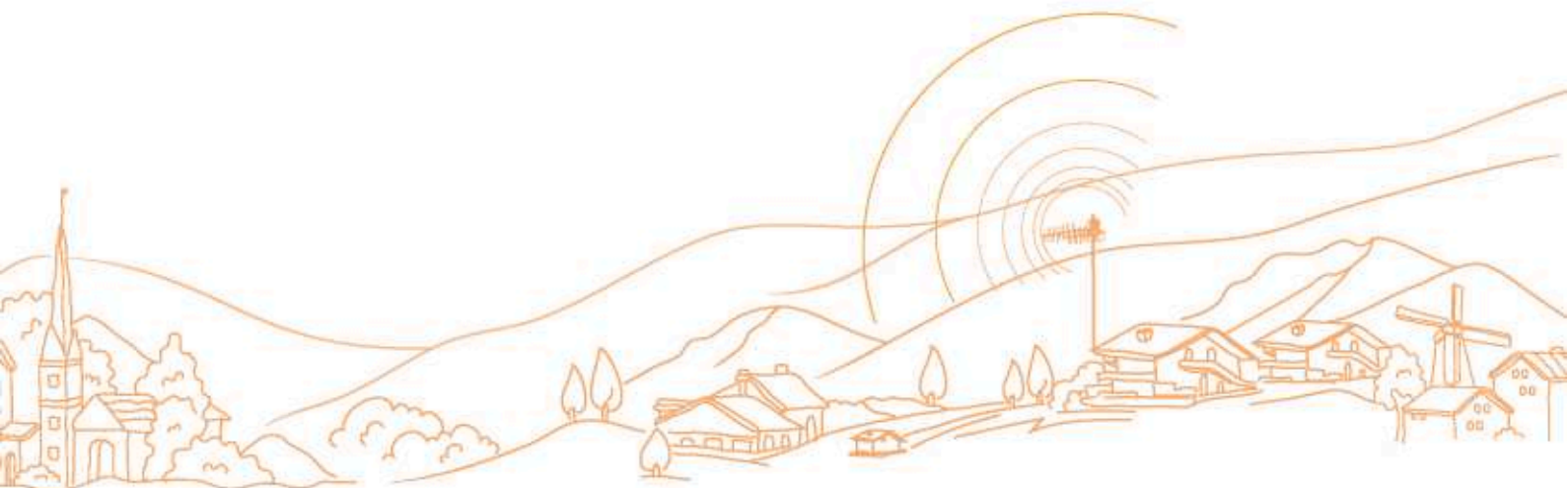
Y-Haul provides effective operation even in near-line-of-sight (nLOS) thanks to UHF/VHF frequency bands and high output power. Furthermore, Y-Haul integrates both modem and radio unit within a single outdoor unit. This combination eliminates cable attenuation keeping the system gain extremely high.

Effective spectrum usage

System spectral efficiency goes up to 5 bps/Hz, representing the highest in the category. Y-Haul can transmit the information up to 29 Mbps capacity using only 3.5 MHz bandwidth.

TCO saving

Y-Haul reduces the cost for building masts and towers due to the limited number of stations needed to cover a huge territory and the extremely low requirements for wind loads. Y-Haul can even be installed within trees in a fully autonomous mode consuming only 50 W.



Y-Packet: main features

System types	1+0, 1+1 Hot Stand By, XPIC and 2+0 both with Layer 1 link Aggregation*, Repeater
Radio Capacity	Up to 420 Mbps Layer 2 @ 56 MHz and 1024 QAM in 1+0 configuration Up to 840 Mbps Layer 2 @ 56 MHz and 1024 QAM in XPIC and 2+0 configurations with Layer 1 link aggregation
Frequency Bands [GHz]	6L, 6U, 7, 8, 10.5, 11, 13, 15, 17, 18, 23, 24, 32, 38**
Modem	Modulation from 4QAM to 1024 QAM ETSI Bandwidth from 7 MHz to 56 MHz ANSI Bandwidth from 10 MHz to 60 MHz Digital predistortion Reed Solomon and Convolutional FEC Layer one Link Aggregation
Ports	1 PoE GE, 1 XPIC RJ54 and 1 RSSI Alignment for Y-Link C 1 PoE GE, 1 SPF, 1 XPIC RJ45, 1 External Power Supply and 1 RSSI Alignment for Y-Link F
Ethernet & QoS	VLAN IEEE 802.1Q: Trunk, Access and Transparent Jumbo Frames 9700 Bytes DSCP and IEEE 802.1p Classifiers, 4 Queues scheduled as WRR and Strict Priority Configurable Buffer for long fiber distances Flow control IEEE 802.3X Rate Limiter
Security	RADIUS user Authentication and Authorization. Three user privileges HTTPS and SSH Firewall Access Lists for SNMP, HTTP and HTTPS
Management	Double IPv4 stack (Y-Link F only) and IPv6 SNMPv2 Y-NMS (own NMS)* C-TAG and S-TAG on both IPv4 and IPv6 stacks Up to 10 SNMP managers Up to 10 SNMP Trap receivers
Timing and Sync	Up to 5 NTP Servers Transparent Synchronous Ethernet
User Interface	Intuitive web interface based on AJAX technology Detailed history activity logs
Environment	From -33 (-50 °C option) °C to + 55 °C Packet-C and Packet-F (Y-Packet-CI and Y-Packet FI)

*Patented solution - Available Q3 2014 **Available Q3 2014

Y-Haul TDD

Y-Haul FDD

System types	full-outdoor, point-to-point point-to-multipoint (up to 16 subscribers)	split mount (ODU+IDU) full outdoor (ODU) point-to-point
Radio Capacity	Up to 29 MBps @ 12 MHz and 64 QAM	@1.75 MHz up to 9.3 Mbps @3.5 MHz up to 17 Mbps
Frequency Bands	310-360 MHz, 410-460 MHz, 470-698 MHz	400 MHz Any from 300 MHz to 3000 MHz (upon request)
Duplex	Time Division Duplex (TDD)	Frequency Division Duplex (FDD)
Bandwidth allocation	Symmetric or Asymmetric Uplink/Downlink: from 12.5/87.5 to 87.5/12.5	
Modem	OFDM with BPSK / QPSK / QAM16 /QAM64 adaptive modulation bandwidth from 1.5 MHz to 12 MHz	OFDM, adaptive modulation form QPSK to 64QAM
Maximum Output Power	30 dBm @ any modulation Manual/Automatic Output Power Control ± 20 dB	up to 35 dBm manual / automatic output power control ± 20 dB
Receiver sensitivity (BER = 10^{-6})	-100 dBm @1.5 MHz@QPSK	-96 dBm @1.75 MHz @QPSK
Ports	Ethernet 100BaseFX	Up to 4E1 / Ethernet
Power supply	-39...-72 VDC	-39...-72 VDC
Power consumption	<50 W per ODU	<50W per ODU
Management	web-interface Y-NMS SNMP v1/v2/v3	web-interface Y-NMS SNMP v1/v2/v3
Environment	-50 to 60°C to + 70°C (option)	-50 to +50 °C to + 70°C (option)
Configuration	1+0, 2+0	1+0, 1+1, 2+0, 1+1 STP*

* Smart traffic protection



Windows-based graphic user interface

Graphic interpretation from a singular hop to the whole network

Security management

SNMP and web-interface support



Flexible in configuration and management features

Scalable maps for different regions

Full packet of software are available to use without any limits and licenses

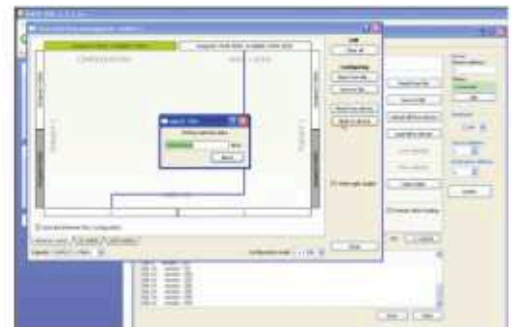


Graphical and textual data representation

Timestamps and measurement results for every point of the chart

More than 500 parameters per station that could be stored and analyzed

Detailed real-time logging both for common and particular displaying cases



Y-Packet



Outdoor Unit available from 6 to 38 GHz in Licensed & Unlicensed (17 & 24 GHz) Bands with or without integrated antenna.

In the simplest configuration and for pure data connection with extra low latency <1 ms no IDUs is required (only PoE adapter).

The fiber interface is also available.



Standard Power Injector compliant with 802.3at

Y-Haul



Transmit and Receive Unit (TRU) of Y-Haul is installed in close proximity to the antenna.

It has universal digital modem with the software-switched modulation types QPSK / 8QAM / 16QAM / 32QAM / 64 QAM.

Connection of TRU and the access module is realized by one optical cable, which carries the digital streams and telemetry signals.

The power is supplied to the TRU by an individual electrical cable from the station power supply source.

TRU output is a coaxial cable.



Main Access Unit MAU1-1RU has functions of primary and secondary traffic multiplexing, monitoring and control, trunks redundancy and providing of TRU power supply. Access Unit transmits Ethernet traffic, up to 4 E1 streams (2E1 built-in interfaces and additional E1 interfaces in the plug-in unit) or Ethernet + nxE1 traffic. The integrated switching device provides input/output and transit of E1 between radio channel and two transit ports.



Pluggable Interface Module PIM-CI-01-O (optical interface)



Pluggable Interface Module PIM-2Eth-U* (interface 2xEthernet)



Pluggable Interface Module PIM-16E1 U* (interfaces 16xE1)



NLOS **Etherent**
ANSI VLAN Team Bandwidth
Details Strong Licences Security Corporate **MHz**
Youncta Innovation **ETSI Unlicensed Gbps**
QoS Cooperation WISP
Optical 1024QAM
XPIC

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