Tiesse
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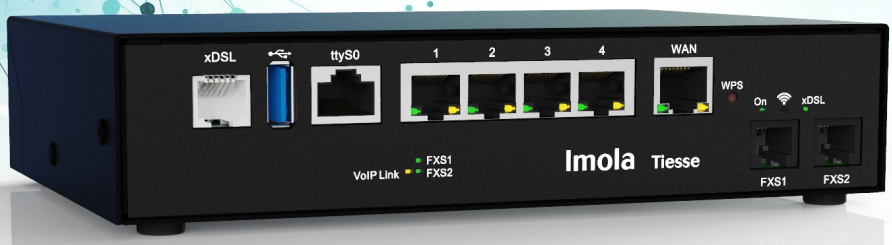
Router
Imola LX series



Imola LX 0272-20

GE
Gigabit

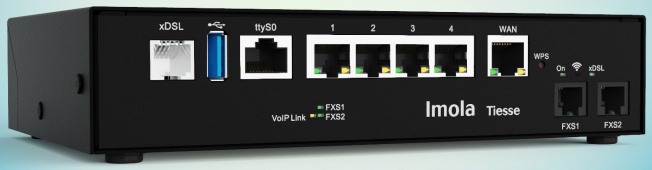
EVDSL
xDSL

Voice

Datasheet

WWW.TIESSE.COM

Imola LX 0272-20



VoIP IAD - eVDSL Router

Imola LX 0272-20 is part of the IMOLA products series, which are certified and used by the main telecommunication operators in their networks.

These model are a highly innovative series of routers/IADs for ultra-broadband data and voice networks.

Imola LX 0272-20 routers allow you to make up to 2 telephone calls (fax and voice) simultaneously over IP network, they are equipped with 4 Giga Ethernet ports and 1 xDSL port that supports the enhanced VDSL profile (35b vPlus).

Imola LX 0272-20 offers advanced features of Quality of Service (QoS), security and routing.

FEATURES

Imola LX 0272-20 has all the features of:

- Routing
- Switching
- QoS
- VoIP
- Zero Touch Provisioning

KEY FACTORS

⇒ Security

⇒ Easy installation and factory pre-configuration

⇒ Remote management and provisioning

⇒ Zero Touch Provisioning

APPLICATIONS

⇒ Voice and data services for small and medium enterprises

⇒ Branches and remote offices of banks and insurance companies

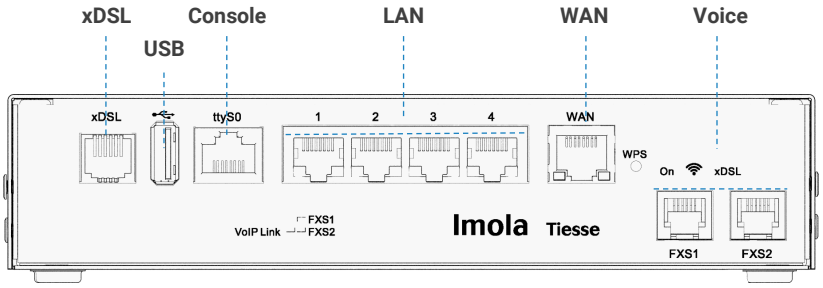
⇒ Retail

eVDSL - New Generation network

Support of the new generation networks (NGN) and ensuring:

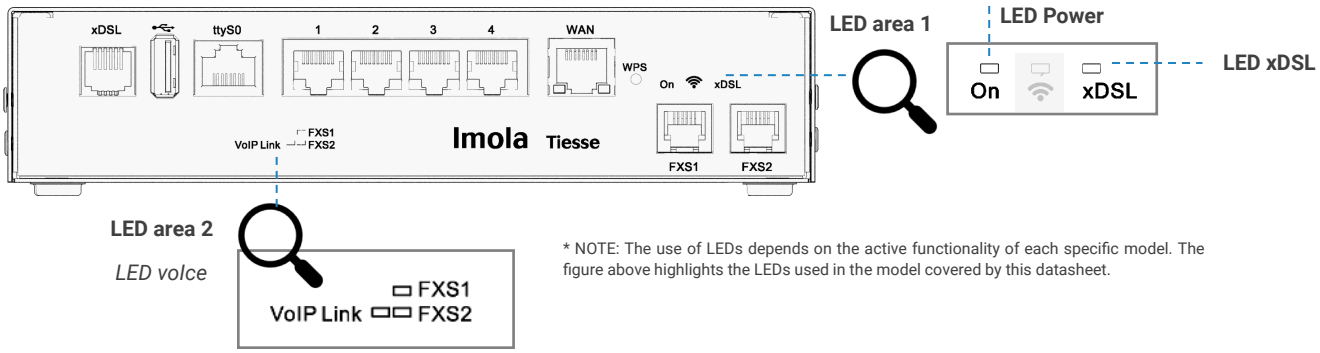
- Support for VDSL2 profiles: from 8 MHz up to 35 MHz, in accordance with ITU-T G993.2 Annex Q standard (35b profiles or Vplus) capable of aggregating rates up to 400 Mbps
- G.Vector standard-compliant (ITU-T G.993.5)
- ITU-T G.998.4G.INP standard-compliant (impulse noise protection)
- ADSL2 compatible (backward compatibility)

HARDWARE INTERFACES



Port	Description	Details
LAN	– GE	– 4 10/100/1000 Mbps Ethernet ports switch, RJ45 auto sensing connectors
WAN	– GE-WAN	– 1 Ethernet WAN port (label WAN)
VOCE	– FXS	– 2 FXS, ports, RJ11 connectors
CONSOLE	– RJ45	– 1 console port, RJ45 connector
USB		– 1 USB 3.0 port

LED DESCRIPTION



* NOTE: The use of LEDs depends on the active functionality of each specific model. The figure above highlights the LEDs used in the model covered by this datasheet.

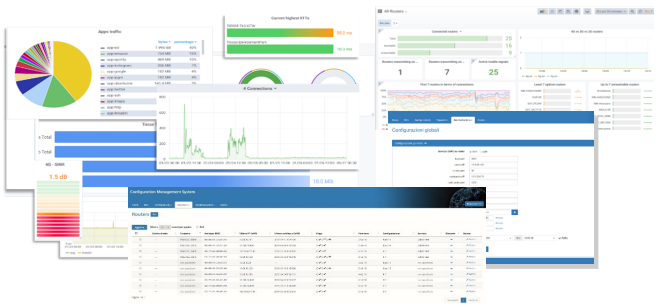
LED	Color	Description
Power	Green	– 1 x power / operative status
xDSL	Green	– 1 x operative status
LAN	Green/Yellow	– 2 x for each Ethernet LAN port, tells operative status
FXS1 FXS2	Green	– 1 x for each VoIP port, tells operative status
VoIP	Yellow	– 1 x operational status of voice line connection

ZERO TOUCH PROVISIONING

Imola LX routers are integrated into the **Tiesse Network Architecture (TNA) suite**.

TNA is the modular software suite that enables Zero Touch Provisioning network architecture, including monitoring, remote and automated web-based management of configurations and firmware releases of the installed fleet; enables traffic engineering, network overlays, and many other features.

A complete datasheet of the solution is available at www.tiesse.com.



SOFTWARE

** Nota: le funzionalità software dipendono dalla versione e dal livello di aggiornamento del firmware del prodotto.*

Area	Caratteristiche principali	
NETWORKING	– TCP-UDP IPv4 – ICMP	– IPv6 – VLAN and Hybrid mode
LAYER 2 FEATURES	– LAN Bridging – VLAN support on LAN interface 802.1q in Access mode, Trunk, native VLAN and Hybrid mode	– Layer 2 Protocol Tunneling (L2PT) – 802.1Q-in-802-1Q
ROUTING & MULTICAST	– Static, Policy routing, RIPv1, RIPv2 – BGP-4, BGP-4+ – OSPFv2 – VRF Lite, Routing redistribution and tagging – VRRP (Virtual Routing Redundancy Protocol) with IPv4-IPv6 authentication	– IGMP v1-v2-v3, IGMP snooping, IGMP proxying – Multicast routing with PIMv2 sparse-mode and PIMv2 dense-mode, MSDP – IEEE 802.1d (Spanning Tree Protocol)
QOS	– Traffic classification based on source IP, on a combination of source IP, destination IP, protocol (UDP, ICMP, TCP, etc) ports, application recognition, IP Precedence and DSCP – DiffServ – Layer 2 Remarking COS – QoS on ATM class	– Shaping with guaranteed allocated bandwith and redistribution of bandwith excess – Committed Access Rate e Multicast rate Limit – Mechanisms of traffic prioritization, ability to define an arbitrary number of priority classes – IEEE 802.3ad link aggregation
SECURITY	– NAT/PAT – ACLs, Stateful Firewall – IP Filtering – SSL Tunnelling	– L2TP – PPTP – GRE Tunnelling – VPN with IPSEC 3 DES Encryption
SERVICES	– DHCP client, DHCP server with antispoofing functions – Intelligent DNS Proxy, local and remote – Traceroute	– NTP Client and Server support – Easy VPN
MANAGEMENT AND CONFIGURATION	– SNMP v1, SNMPv2, SNMPv3 – Telnet server with multiple simultaneous sessions – SSH server with multiple simultaneous sessions (SSHv2) – IP SLA support for: One Way Delay, Round Trip Delay, Jitter, Packet Loss – SAA (Service Assurance Agent) – Fault management Syslog /Trap – User authentication with PAP/CHAP, RADIUS, TACACS+	– Tracking for backup management, commands and scheduled events – Software update via TFTP and FTP – Configuration via command Line Interface (CLI), Text/Menu oriented and Telnet – TNA (Tiesse Network Architecture) suite for auto-provisioning and remote automated management – Management of an arbitrary number of configurations
VOICE	– Conforme Compliant to the SIP standards: RFC 2327 SDP, RFC 2617 , RFC 3261 SIP, RFC 2833, RFC 2976, RFC 3262, RFC 3264, RFC 3265, RFC 3311, RFC 3323 ,RFC 3325, RFC 3326, RFC 3398, RFC 3578, RFC 3842, RFC 3960, RFC 4566 – Registration features SIP, SIP UAC, registration deletion – Codec support and negotiation	– OOB DTMF tone management, in-band and announcing tone – Unconditional call forwarding – On Hold Call Capability – Fax T.38 Support – Interoperability with PBX – Line Hunting

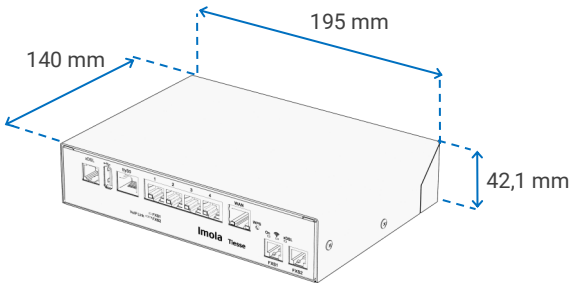
HARDWARE FEATURES

POWER	– 12V AC/DC Adapter – ON/OFF button
CONSUMPTION	– < 20 W Full Configuration
FANS	– Fanless
PROCESSOR	– RISC Network processor
MEMORY	– 256 MB - DDR3
FLASH MEMORY	– 256 MB
ENVIRONMENT	– Operating temperature: –5°C / +50° C – Storage temperature: –40°C / +70°C – Max operating humidity: 93% (non condensing)

EXTERNAL FEATURES

MATERIAL	– Metallic chassis
COLOR	– Black
FORM FACTOR	– Desktop

SIZE



STANDARD WEIGH 1010 gr ±10%

Add-ons

Tiesse products offer a range of optional accessories, available according to the specifications of each model; these include omnidirectional and directional antennas for outdoor use, mounts for various mounting options, and SFP transceiver modules.

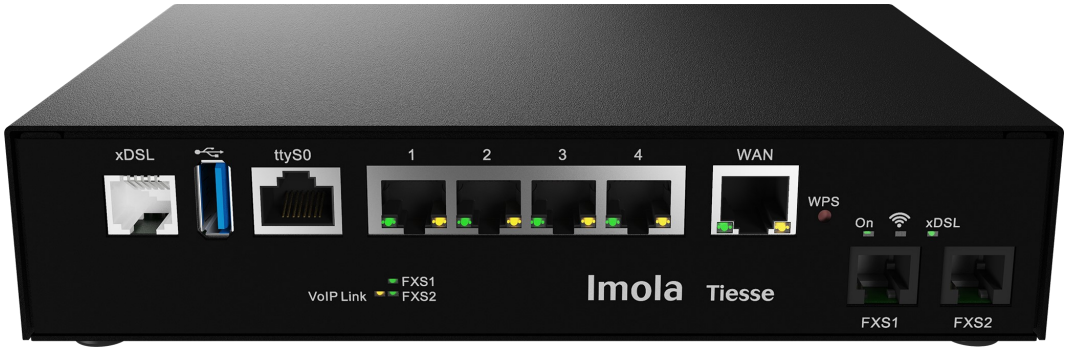
Complete documentation on supported accessories can be downloaded directly from www.tiesse.com.

Supporto tecnico

On line support on:

Supporto.tiesse.com: portal with technical documentation, installation instructions, software updates, and ways to request technical support.

Wiki.tiesse.com: site dedicated to software documentation; includes user manuals, first-time user guides, case studies, tutorials, and other useful resources for using the products.



Tiesse

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Tiesse is a totally Italian company with more than 25 years of experience in the design, development and production of network equipment and IoT devices, suitable for use in mission-critical and industrial scenarios. Tiesse's most successful series, Imola, Lipari and Levanto, are innovative, competitive and certified, and are present in the networks of the major telecommunications operators, in the energy sector, large-scale distribution and vertical sectors, both in the Italian and foreign markets.

Further information on Tiesse solutions can be found on the company website www.tiesse.com.

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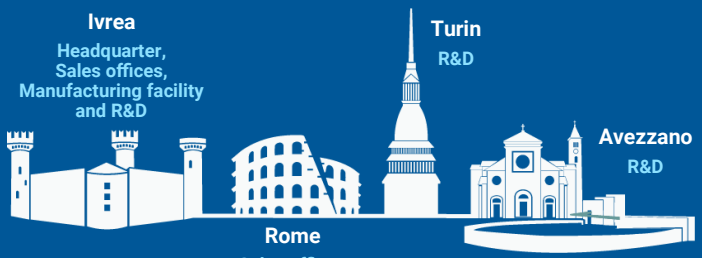
www.tiesse.com



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