Tiesse
Innovation made in Italy®

Lipari
router series

Lipari 5200-IKW

Fast Ethernet

Wi-Fi

LTE

Dual SIM

Datasheet

WWW.TIESSE.COM

Lipari

5200-IKW

Wi-Fi and Dual SIM LTE router

Lipari 5200-IKW provides LTE connectivity to the user accessing the public or private data network (Internet/Intranet) with the appropriate level of security. The **5200-IKW** router has two SIM slots to support failover and backup configurations. The use of the operator with the best network coverage, depending on the location of the installation, also increases the reliability of the end-to-end solution.

Lipari 5200-IKW has also 2.4 GHz Wi-Fi.

APPLICATION SCENARIOS

Lipari 5200-IKW is particularly suited for business critical applications in the following scenarios:

- Sales points
- Temporary installations / Outdoor installations
- Disadvantaged locations not reached by fixed networks
- Backup to the main network
- Totem, Vending Machine, ATM
- Digital Signage
- Video Surveillance
- Telecontrol and monitoring application

KEY BENEFITS

⇒ Always-on connection and service continuity

⇒ Security

⇒ Easy installation and factory pre-configuration

⇒ SIMs are installed and tested in factory on each device

⇒ Remote management and provisioning

DIGITAL DIVIDE & MOBILITY… WHEREVER YOU ARE…

Access

- It is possible to access the company data from any external location, even on the move (like agents, branch offices, temporary offices in fairs or construction sites).ì
- It is possible to grant immediate access to the network without waiting for the activation of the fixed line
- In case of temporary or itinerant installations (fairs, events, events, seasonal services)
- The access to the network is instantaneous and does not require any special structures
- It's the ideal and optimized solution for unattended single workstations (like Kiosks) for payment services, advertising, information points, gaming.

Security

- Guaranteed secure VPN communication even on the public network. IPSec with 3DES - Data protection

Installation

- Easy and immediate installation, possibility of ex-factory configuration

Performances

- Optimization of the use of the mobile radio channel to control traffic costs and improve transmission quality: asynchronous notifications, control messages, time inactivity, removable antenna to allow the use of high gain or outdoor antennas

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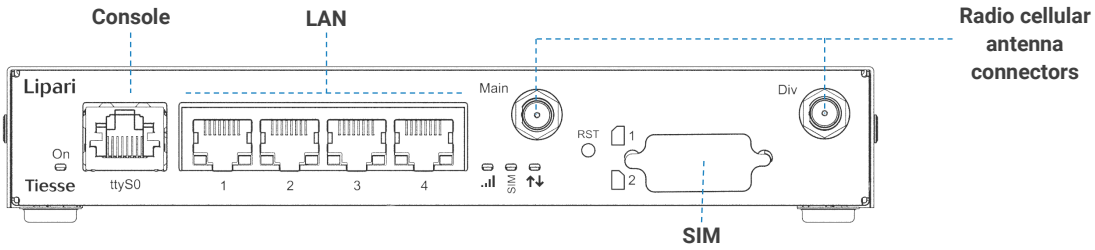
HARDWARE INTERFACES

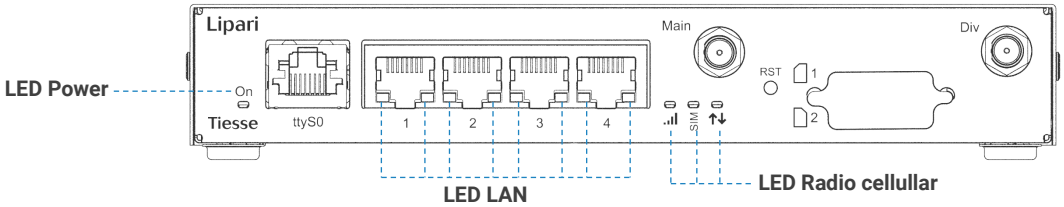


Ports	Type	Details
LAN	— **FE**	— 4 x Ethernet ports 10/100 Mbps; RJ45 connectors - with or without auto-negotiation, configurable
Wi-Fi		— 1 x 802.11 b/g/n (2.4 GHz)
Radio Cellular * NOTE: Throughput value depends on network configuration, assigned bandwidth, number of users, and RF signal condition.	— **LTE**	— **Frequency bands**: LTE-FDD: B1/B3/B7/B8/B20/B28 — **Throughput*:** LTE-FDD: 150 Mbps (DL) - Max 50 Mbps (UL) (*) — Support up to CAT4 - Designed and prepared for category 6, available on request
	— **UMTS**	— **Frequency bands:** WCDMA: B1/B8 — **Throughput***: DC-HSDPA: max 42 Mbps (DL) HSUPA: max 5.76 Mbps (UL) WCDMA: max 384 Kbps (DL) - max 384 Kbps (UL)
	— **UMTS**	— **Frequency bands:** B3/B8 — **Throughput***: EDGE: max 296 Kbps (DL) - max 236.8 Kbps (UL) GPRS: max 107 Kbps (DL) - max 85.6 Kbps (UL)
	— **SIM**	— 2 x SIM Slots (Dual SIM mutual esclusive) — SIM connector type: push-push
Console	— **RJ45**	— 1 x RJ45 connector

Front view with SIM slot protection opened and SIMs inserted

Front view - The SIM slot protection is closed

LED DESCRIPTION



LED	Color	Description
Power	**Verde**	— 1 x power / operative status
LAN	**Verde/Giallo**	— 2 x operative status - for each port
Radio cellulare	**Verde**	— 1 x status/activity radio cellular connection
	Verde	— 1 x reporting which SIM is in use (SIM1 vs SIM2)
	Verde	— 1 x IP address operative state (No IP, Obtaining it, Assigned)

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SOFTWARE

Note: the list below is indicative; the features depend on the version and update NOS.

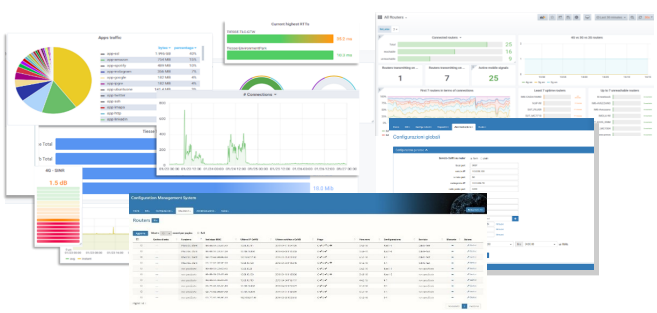
Area	Caratteristiche principali*
Networking	– TCP-UDP IPv4, IPv6, ARP
Layer 2 features	– LAN Bridging – VLAN over LAN 802.1q interface in Access mode, Trunk, native VLAN and Hybrid mode
Routing & Multicast	– Static – BGP-4, BGP-4+ – OSPFv2 – RIPv1, RIPv2 – Policy-based routing (PBR) – VRF Lite – Routing redistribution and tagging – VRRP (Virtual Routing Redundancy Protocol) with IPv4-IPv6 authentication – IGMP v1-v2-v3, IGMP snooping, IGMP proxying – Multicast routing with sparse-mode PIMv2 and PIMv2 dense-mode, MSDP – IEEE 802.1d (Spanning Tree Protocol)
Security	– NAT/PAT – ACLs, Stateful Firewall – SSL Tunnelling – L2TP – GRE Tunnelling with keep alive and key sequence numbering (cellular network optimization) – VPN with IPSec – 3 DES Encryption
Services	– DHCP client, DHCP Relay, DHCP server with antispoofing functions, DHCP Layer Discovery Protocol IEEE 802.1ab – Intelligent DNS Proxy, local and remote – Traceroute – Support of NTP Client and Server – Easy VPN – Dynamic DNS
Management and Configuration	– SNMP v1, SNMPv2, SNMPv3 – Telnet server with multiple simultaneous sessions – SSH server with multiple simultaneous (SSHv2) – IP SLA with support of: One Way Delay, Round Trip Delay, Jitter, Packet Loss – Fault management Syslog /Trap – RADIUS, TACACS+ – Tracking for backup management, commands and events scheduling – Software update via TFTP and FTP – Configuration via Command Line Interface (CLI), Text/Menu oriented and Telnet – Configuration via HTTP WEB GUI – Ability to maintain an arbitrary number of configurations

ZERO TOUCH PROVISIONING

Lipari 5200-IKW routers are integrated into **TNA (Tiesse Network Architecture)** software suite.

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

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



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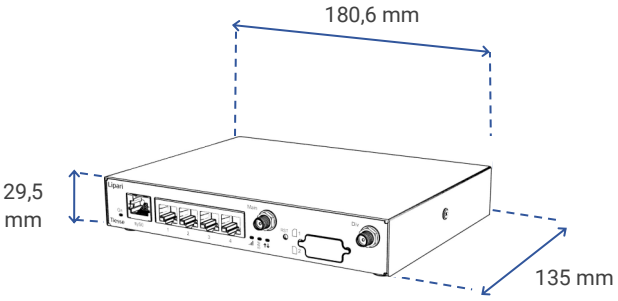
SYSTEM FEATURES

POWER	– AC Adapter Desktop 12V 2,5A RoHS3 , external power supply – 12-24 VDC (range 9-28)
CONSUMPTION	– < 3 W
ENVIRONMENT	– **Operating temperature:** −25° C / +70° C −40° C / +70° C - limit range – **Storage temperature:** −40° C / +70° C – **Max operating humidity**: 95% (non condensing)
PROTECTION GRADE	– IP40
PROCESSOR	– CortexA7- 528 MHz
MEMORY	– Default 128 MB (optional up to 512 MB)
FLASH MEMORY	– 256 MB or optional version on request: EMMC (8 GByte) with Linux Debian

EXTERNAL FEATURES

MATERIAL	– Metal chassis
COLOR	– black
FORM FACTOR	– On horizontal plane – 1U rack (optional rack mounting kit)
ANTENNAS	– **Radio cellullar** 2 x 4G external removable antennas, SMA male connector – **Radio Wi-Fi** 2 x b/g/n external removable antennas, SMA male connector

SIZE



Add-ons

The Lipari 5200-IKW models are equipped with optional accessories such as omni-directional and outdoor antennas, or supports for additional mounting options.

Please refer to the documentation specification for all supported accessories, available on www.tiesse.com.

Technical support

On line support via:

Supporto.tiesse.com: the site with technical documentation, assembly instructions, software updates, and how to request technical support.

Wiki.tiesse.com: the site with manuals, instructions for installation, case studies, scenarios, FAQs, etc.

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Tiesse

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Tiesse is a **totally Italian company** which has more than 20 years of expertise in designing, developing, and manufacturing both M2M/IoT and network devices. The **IMOLA**, **LIPARI** and **LEVANTO** product series are innovative, competitive and certified; they are present in the largest distributed national networks (from gas stations to large retailers, insurance companies and banks) as well as in the largest networks of the main gaming operators and energy sector.

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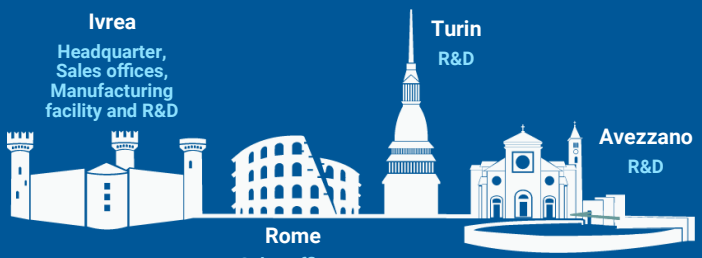
IMQ CERTIFIED QUALITY MANAGEMENT SYSTEM ISO 9001:2015

IMQ ATTESTED UNI EN ISO 14064-1:2019

IQNET RECOGNIZED CERTIFICATION

IMQ CERTIFIED ENVIRONMENTAL MANAGEMENT SYSTEM ISO 14001:2015



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Ver. ENG 050624

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