Tiesse

Innovation made in Italy

Lipari 5200

Dual SIM cellular LTE router

www.tiesse.com

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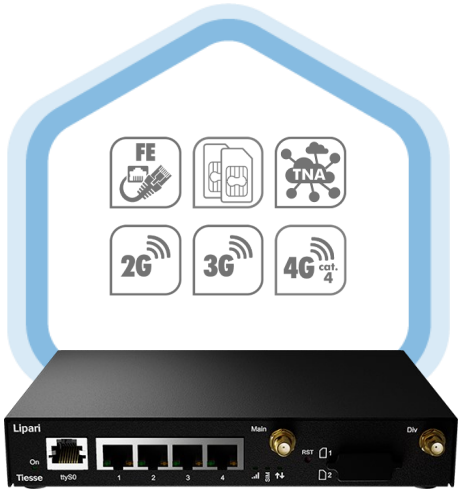


Lipari 5200 provides LTE connectivity,with the appropriate level of security, to the user who is accessing the public or private data network (Internet/Intranet)

The **5200** 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.

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

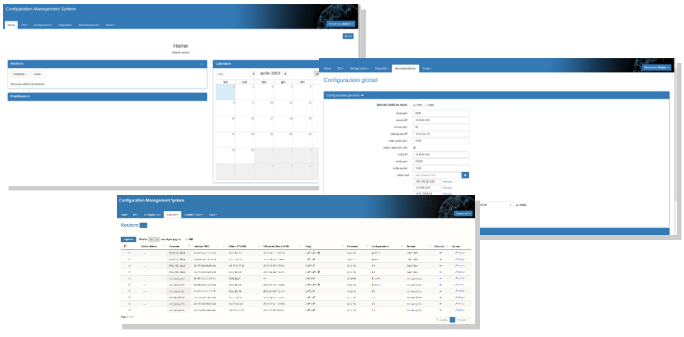
APPLICATIONS

Lipari 5200 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

Zero Touch Provisioning

Lipari 5200 routers are integrated in the **TNA (Tiesse Network Architecture)** suite, which is used for the remote and automated management via WEB of the configurations and firmware releases of the installed device park.



Digital Divide and 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).
- 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)
- In case of unattendend positions (Kiosks) for payment services, advertising, information points, gaming

Security

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

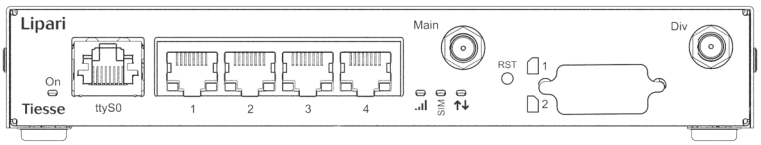
Installation

Easy and immediate installation, possibility of ex-factory configuration

Performance

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

INTERFACES



LAN	**FE ports**	2	Ethernet ports 10/100 Mbps -RJ45 With or without auto-negotiation, configurable
RADIO CELLULAR	**BANDS**	•	– LTE FDD: B1/B3/B7/B8/B20/B28 – WCDMA: B1/B8 – GSM: B3/B8
	LTE	•	– Support up to CAT4 * – LTE FDD: 150 Mbps (DL) - Max 50 Mbps (UL)
	UMTS	•	– DC-HSDPA: max 42 Mbps (DL) – HSUPA: max 5.76 Mbps (UL) – WCDMA: max 384 Kbps (DL) - max 384 Kbps (UL)
	GSM	•	– EDGE: max 296 Kbps (DL) - max 236.8 Kbps (UL) – GPRS: max 107 Kbps (DL) - max 85.6 Kbps (UL)
	SIM		– 2 SIM cards (mutual esclusive)
CONSOLE	**Console port**	1	RJ45 connector

Front view, with the SIM slot protection opened and the two SIM cards inserted

Front view, with the SIM slot protection closed

* Designed and prepared for category 6, available on request

PROTOCOLS

NETWORKING

- TCP-UDP IPv4
- IPv6 support
- ARP

LAYER 2 features

- LAN Bridging
- Supporto VLAN su interfaccia LAN 802.1q in Access mode, Trunk, Native VLAN e 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)

QoS

- Traffic classification based on sourceIP, combination of source IP, destination IP, protocols (UDP, ICMP,TCP, etc.), over precedence DSP/IP, ToS or ports
- DiffServ
- CoS over VLAN
- Shaping with allocated guaranteed bandwidth and redistribution of the in excess one
- Committed Access Rate and Multicast rate limit
- Traffic Prioritization mechanism, definition of an arbitrary number of priority class

SECURITY

- NAT/PAT
- ACLs, Stateful Firewall
- SSL Tunnelling
- L2TP
- GRE Tunnelling with keep alive and key sequence numbering (optimization of the radio mobile network)
- VPN con IPSEC, 3 DES Encryption

SERVICES

- DHCP client, DHCP Relay
- DHCP server with antispoofing functionality
- DHCP Layer Discovery Protocol IEEE 802.1ab
- Intelligent DNS Proxy, local and remote
- Traceroute
- NTP Client and Server support
- Easy VPN
- DDns

CONFIGURATION AND MANAGEMENT

- SNMP v1, SNMPv2, SNMPv3
- Telnet server with multiple contemporary sessions
- SSH server with multiple contemporary sessions (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 event 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 keep a certain arbitrary number of configuration
- TNA (Tiesse Network Architecture) suite for auto-provisioning and API remote automated management

Lipari 5200 - Dual SIM LTE router

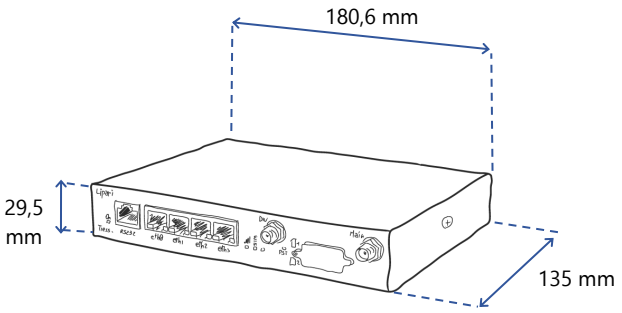
LAN connectivity towards mobile 4G (LTE) network

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 of operation **Storage temperature**: –40° C / +70° C **Max operating humidity**: 95% (non condensing)
PROTECTION GRADE	IP40

PROCESSOR	CortexA7- 528 MHz
MEMORY	Default 128 MB (up to 512 MB optional)
FLASH MEMORY	256 MB or optional version on request: EMMC (8 GByte) with Linux Debian

SIZE



EXTERNAL FEATURES

Material	Metal black
Antennas	**Radio cellular** 2 x external removable 4G antennas. SMA male connectors
Mounting	On horizontal plane or 1U rack (optional rack mounting kit)

LED INDICATORS

Status LED	1 x power / operative status
Ethernet	2 x operative status - for each port
Radio cellular	1 x status/activity radio cellular connection
	1 x reporting which SIM is in use (SIM1 vs SIM2)
	1 x IP address operative state (No IP, Obtaining it, Assigned)

Technical support

Tiesse provides the user with two sites that are constantly updated:

Support.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.

ADD-ONs

Lipari 5200 models are provided with optional add-ons like omnidirectional outdoor antennas and brackets for mounting on a 1U rack.

Refer to the specific documentation on both add-ons and supported SFP transceiver for more information.

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Tiesse is a 100% italian company which has more than 20 years of expertise in designing, developing, and manufacturing M2M/IoT and network devices. The products series **IMOLA**, **LIPARI** and **LEVANTO,** which are innovative, competitive and certified, 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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