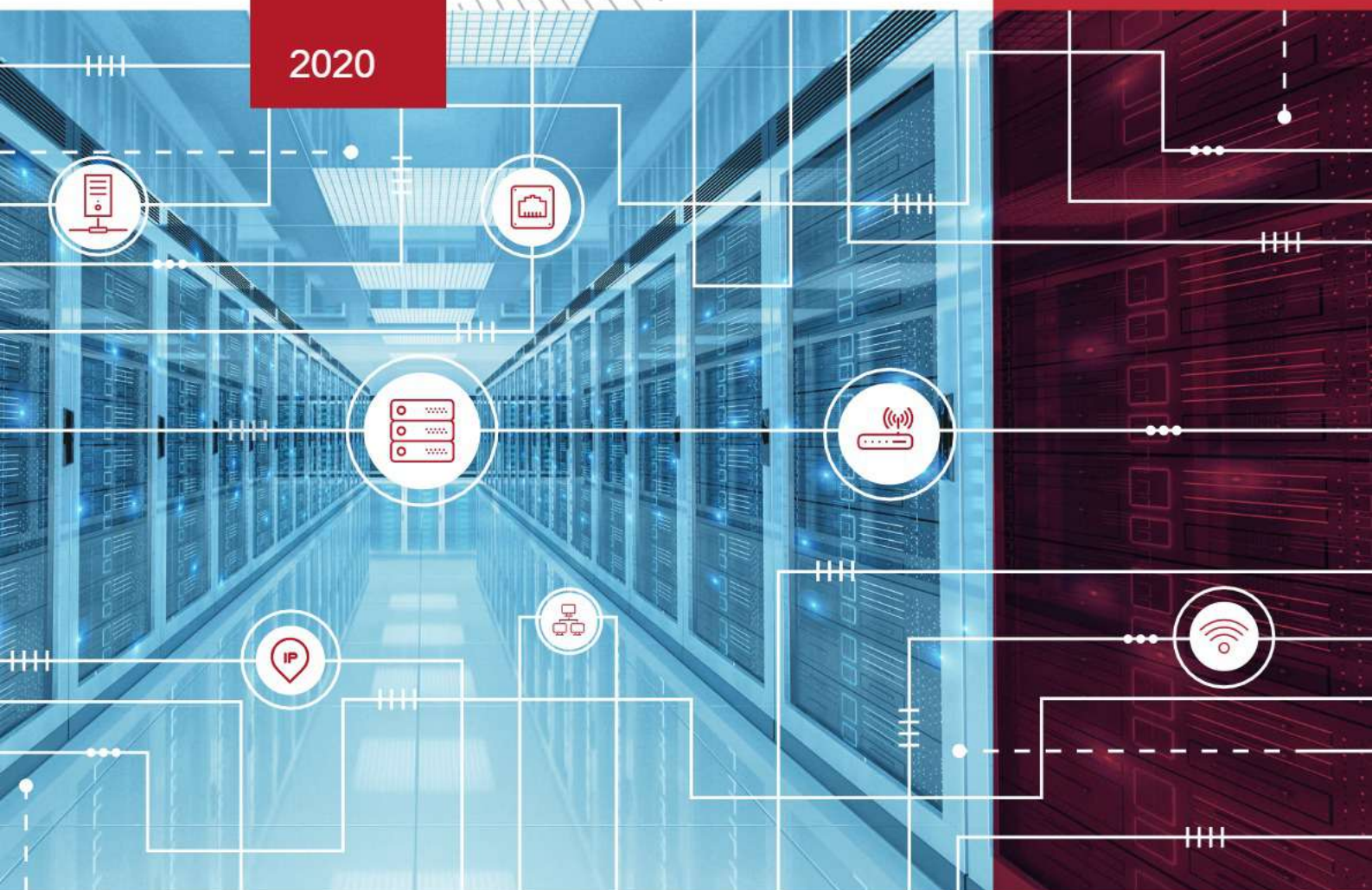




QTECH
МИР ДОСТУПНЕЕ

CATALOG EQUIPMENT AND SOLUTIONS

2020



qtech.ru



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ABOUT QTECH

The company's central office is located in Moscow, regional offices - in the largest cities of Russia: Yekaterinburg, Krasnodar, Krasnoyarsk, Novosibirsk. R&D centers are in Moscow (Skolkovo) and Ryazan.



6 of offices
in five Russian cities

- | | | | |
|--|--|--|--|
| <p>1. Moscow
Head office, laboratory, R&D center in Skolkovo, warehouse</p> | <p>2. Tula
Contract manufacturing</p> | <p>3. Ryazan
R&D center</p> | <p>4. Krasnodar
Office, service center, warehouse, laboratory</p> |
| <p>5. Ekaterinburg
Office, warehouse</p> | <p>6. Krasnoyarsk
Office, warehouse</p> | <p>7. Novosibirsk
Office, warehouse</p> | |

QTECH is a Russian developer and manufacturer of telecommunications and IT equipment. The company was founded in Russia in 2006. QTECH pays particular attention to the quality and development of integrated solutions based on its products.

Over the years, under the QTECH brand **more than 200 lines of equipment**.



QTECH catalog today includes

more than 2000 units

world-class telecommunication and IT equipment.

The company is actively developing the development of hardware and software solutions "Smart Home" and "Smart City".

QTECH works on equipment **25,000** state and commercial enterprises and organizations. Supported

Over the years, strong partnerships with customers are the best evidence that the company has established itself as a reliable and responsible manufacturer.



6 of offices



more 700
partners



3 R&D center



more 200
employees



200 product lines



more fifty
development
engineers

WE DEVELOP AND PRODUCE

The QTECH product range covers all the needs of telecom operators, as well as enterprises and organizations of B2B and B2C segments in the field of telecommunication and IT equipment.

QTECH equipment successfully competes with the best foreign counterparts in quality and price.



ETHERNET SWITCHES AND ROUTERS

- ▮ Ethernet access switches
- ▮ Ethernet aggregation switches
- ▮ Data Center Switches
- ▮ Industrial switches
- ▮ Unmanaged switches
- ▮ Enterprise Routers



WIRELESS TECHNOLOGIES

- ▮ Systems for licensed frequencies
- ▮ Unlicensed Frequency Systems
- ▮ Wi-Fi solutions
 - ▮ External access points
 - ▮ Internal Access Points
 - ▮ Access Point Controllers
- ▮ Radio bridges



PASSIVE EQUIPMENT

- ▮ Cabinets and racks
- ▮ Fiber optic equipment
- ▮ SCS components



PON EQUIPMENT

- ▮ GPON OLT
- ▮ GPON ONU
- ▮ GEAPON OLT
- ▮ GEAPON ONU



SUBSCRIBER EQUIPMENT

- ▮ PLC adapters
- ▮ Wi-Fi Routers
- ▮ LTE routers



IP DOMOFONIA

- ▮ Call Panels
- ▮ Video monitors



VoIP

- ▮ IP PBX
- ▮ IP telephony
- ▮ Voice gateways



CCTV SYSTEMS

- ▮ IP camcorders
- ▮ Analog camcorders
- ▮ IP DVRs
- ▮ Analog dvr's



INTERNET OF THINGS

- ▮ Base stations LoRaWAN
- ▮ Metering devices
- ▮ Pulse counters and converters



TRANSPORT DATA TRANSMISSION NETWORKS

- ▮ SDH equipment
- ▮ XWDM equipment
- ▮ MPLS-TP / IP Equipment
- ▮ PDH equipment
- ▮ Media Converters



MULTIMEDIA

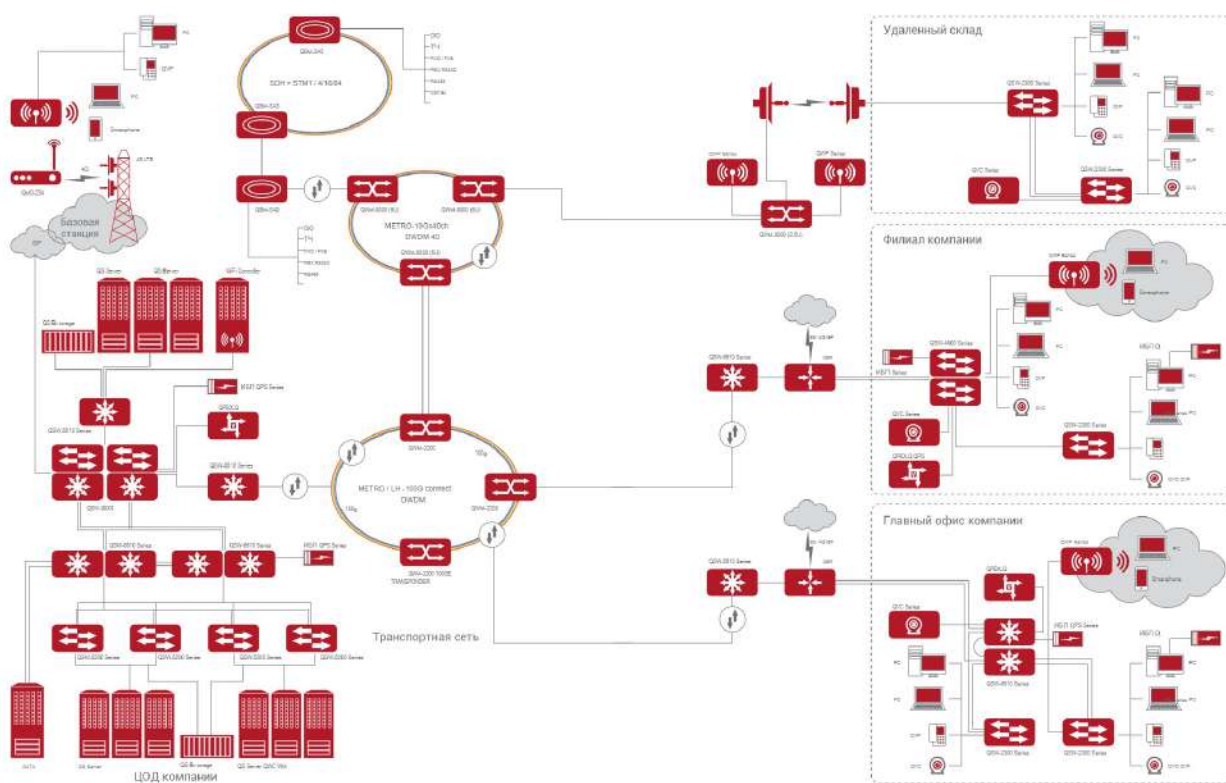
- ▮ Video panels
- ▮ Displays
- ▮ Monoblocks



SERVER EQUIPMENT AND SHD

- ▮ Single processor platforms
- ▮ Dual processor platforms
- ▮ Multi Node Platform
- ▮ Data storage systems

EXAMPLE OF BUILDING A DATA TRANSFER NETWORK FOR CORPORATE CLIENTS



SCOPES OF APPLICATION OF QTECH SWITCHES

SMB segment		Enterprise Segment		
Features and Scalability				
Access (L2)	Aggregations (L3)	Access (L2)	Aggregations (L3) / Data Center	Industrial
 QSW-1500	 QSW-4000	 QSW-3310	 QSW-6200	 QSW-2100
 QSW-4610	 QSW-8330	 QSW-4600	 QSW-6510	 QSW-2130
			 QSW-98xx	 QSW-2150
				 QSW-3310
Fields of application				
Small offices, SMB, video surveillance systems		Medium and large enterprises, public sector, data centers		Video surveillance, oil and gas industry, industrial automation, electric power industry, Mobile carriers
		Telecom operators, construction segment		



SWITCHES

Data Center Switches

QSW-6510 Series Switches

- TOR switch format 1U
- VxLAN and EVPN for data centers
- Flexible Resource Table
- Switch Virtualization Features
- Advanced L3 Routing Features
- Redundant Power Supplies



Kernel Switches

QSW-98xx Series Switches

- 5/7/10 line card slots
- Switch Virtualization Features
- Switching capacity up to 43 Tbps
- Redundant Power Supplies



Access level switches

Коммутаторы серии QSW-4610

- Коммутаторы доступа в формате 1U
- Увеличенный буфер памяти
- Модели с функцией зарядки АКБ
- Питание PoE до 30Вт на порт
- До 4 портов 10GE SFP+
- Базовые функции L3-маршрутизации



Коммутаторы серии QSW-3310

- Коммутаторы доступа в формате 1U
- Питание PoE до 30Вт на порт
- До 4 портов 10GE SFP+
- Функции виртуализации коммутаторов
- Модели в промышленном исполнении



Коммутаторы серии QSW-4600

- Коммутаторы доступа в формате 1U
- Питание PoE до 30Вт на порт
- До 4 портов 10GE SFP+
- Базовые функции L3-маршрутизации
- Функции виртуализации коммутаторов



Коммутаторы серии QSW-1500

- Энергосбережение и забота об окружающей среде
- Питание PoE до 30Вт на порт
- Передача данных до 250 метров
- Поддержка Plug-and-Play



Distribution Layer Switches

QSW-6200 Series Switches

- ψ Support OSPF, BGP, RIP, IPv6
- ψ Switch Virtualization Features

- ψ Redundant Power Supplies
- ψ Flexible Resource Table



QSW-8330 Series Switches

- ψ Up to 48 GE ports and 8 10GE SFP + ports

- ψ RoE models
- ψ Redundant Power Supplies



QSW-4000 Series Switch

- ψ Up to 12 10GE SFP + ports
- ψ Switch Virtualization Feature



- ψ Up to 32K MAS

Routers for SMEs

QSR-28 Series Routers

- ψ VPN support
- ψ Remote data center management
- ψ 3G, LTE
- ψ Support OSPF, BGP, RIP, IPv6
- ψ H-QoS



Industrial switches

QSW-2100 Series Switches

- ψ Modular Switch Structure
- ψ Redundant Power Supplies
- ψ Fanless design
- ψ Resistance to mechanical stress



QSW-2130 Series Switches

- ψ DIN rail mount
- ψ PoE up to 30W per port
- ψ Wide temperature range
- ψ Dying GASP Support
- ψ Fanless design
- ψ Resistance to mechanical stress



QSW-3310 Series Switches

- ψ Gigabit switch
- ψ Passive cooling
- ψ PoE up to 30W per port
- ψ Ethernet OAM Support





SERVER PLATFORMS

QTECH Server Platforms (Xeon® E3 v5 / v6)

- Unique modular design (easy to remove compute module without opening the server case)
- Support for Intel Xeon E3 v5 / v6 processors
- Disk subsystem from 4 to 36 disks, height 1U-4U
- IPMI / BMC Remote Management Available Unlimited
- Using the platform to build a file server, domain controller, Internet access, email systems, database server and 1C server
- Affordable, reliable solution for small and medium-sized companies



QTECH Server Platforms (Scalable)

- Support for Intel Xeon Scalable Series 1 and 2 generation processors (Bronze, Silver, Gold, Platinum)
- Motherboards with 8, 16, 24 slots for RAM
- Disk subsystem from 4 to 36 disks, with the possibility of installing additional baskets of 3.5" and 2.5" format, height 1U-4U
- NVMe Drive Support
- IPMI / BMC Remote Management Available Unlimited
- Suitable for building servers for various tasks, such as virtualization and cloud computing, big data analytics and high-performance computing



QTECH High Density Server Platforms (Multi Node Xeon® E-21xx)

- Support for Intel Xeon E-21xx series processors.
- Support up to 2 3.5" drives (hot swappable) or 4 2.5" drives
- NVMe M.2 slot for high-speed drives
- IPMI / BMC Remote Management Available Unlimited
- Ability to host multiple server modules in a single chassis
- The solution is perfect for hosting in data centers and data centers, for the tasks of Colocation, VPS / VDS and for building cloud services.



QTECH High Density Server Platforms (Multi Node Xeon® E5 / Scalable)

- Supports Intel Xeon E5 and Scalable processor family
- Disk subsystem from 12 to 24 disks
- Dedicated M2 slot for high-speed drives
- IPMI / BMC Remote Management Available Unlimited
- Ability to host multiple server modules in a single chassis
- Hot-Swap Power Redundancy
- The solution is perfect for hosting in data centers and data centers, for the tasks of Colocation, VPS / VDS and for building cloud services.

NEW! 3U Model, 8 Compute Nodes Based on a Single Intel® Xeon® Processor E-21xx Series



- 12 x DDR4 slots
- Disk subsystem up to 4 HDD 3.5 disks
- Support for installing up to 4 GPGPU cards double-width and full-height
- 2 x 1GB LAN + 2 x 10Gb LAN
- Up to 2 Intel Xeon Scalable processors (max 165 TDP)
- Remote Server Management System IPMI 2.0 Server Management with KVMover-LAN & Virtual-media-over-LAN
- 2 hot-swappable 2000W power supplies 2U height 820 mm deep



QTECH Storage

QSRV-2524 Series, QSRV-4524

- Failover Mode - "Active - Active"
- High reliability and scalability.
- Functional support: Online-tiering, SSD caching, tiered storage, fixed-block deduplication
- Remote data replication
- Manage groups, snapshots, policies, drives and I / O ports

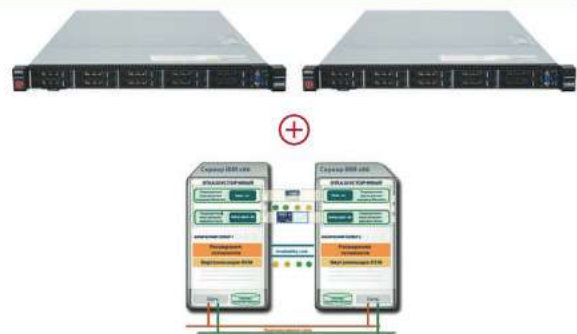


Complete QTECH Solutions. Failover cluster QTECH GPU server platform QTECH

Key features:

- Downtime prevention and business continuity
- Supports Fault Tolerance (FT) or High-Availability (HA)
- Building a system is possible on standard x86 servers
- The ability to build continuous availability systems with a reliability index of more than 99.999%

Recommended Failover Cluster Platform: QSRV-251222, QSRV-261222.



Complete QTECH Solutions. WIFI QTECH controller

Key features

- Hardware-software complex for managing WI-FI networks of any scale.
- Flexible on-demand configuration.
- Reliability and fault tolerance of server technologies.
- Intuitive interface.
- Replacing hardware WIFI controllers.



WIFI EQUIPMENT

Internal Access Points

QWP-930-VC

- 2.412-2.472 GHz
- 300 Mbps
- 802.11 b / g / n
- 1 port 10 / 100BASE-T
- PoE 802.3af
- 2x2 MIMO
- Coeff. 5 dBi gain
- Power PoE, 12V / 24V AC
- It works under the control of the controller



QWP-930

- 2.412-2.472 GHz
- 300 Mbps
- 802.11 b / g / n
- 1 port 10 / 100BASE-T
- PoE 802.3af
- 2x2 MIMO
- coefficient 5 dBi gain
- PoE power supply, 12V / 24V AC



QWP-320-AC-VC

- 2.412-2.472 and 5.180-5.825 GHz
- 300/900 Mbps
- 802.11 a / b / g / n / ac
- 2 ports 10/100 / 1000BASE-T
- PoE 802.3at
- 2x2 MIMO
- BPSK, QPSK, 16QAM, 64QAM
- coefficient 5 dBi gain
- external PSU (optional)
- PoE power supply, 12V DC
- running controller



QWP-320-AC

- 2.412-2.472 and 5.180-5.825 GHz
- 300/900 Mbps
- 802.11 a / b / g / n / ac
- 2 ports 10/100 / 1000BASE-T
- PoE 802.3at
- 2x2 MIMO
- BPSK, QPSK, 16QAM, 64QAM
- coefficient 5 dBi gain
- external PSU (optional)
- PoE power supply, 12V DC



QWP-65-AC-VC

- 2.412-2.472 and 2 x 5.180-5.825 GHz
- 2100 Mbps
- 802.11 a / b / g / n / ac Wave2
- 2 port 10/100 / 1000BASE-T
- PoE 802.3at
- 2x2 MIMO
- coefficient 5 dBi gain
- BPSK, QPSK, 16QAM, 64QAM
- 128-QAM, 256-QAM
- external PSU (optional)
- PoE power supply, 12V DC
- running controller



QWP-65-AC

- 2.412-2.472 and 2 x 5.180-5.825 GHz
- 2100 Mbps
- 802.11 a / b / g / n / ac Wave2
- 2 port 10/100 / 1000BASE-T
- PoE 802.3at
- 2x2 MIMO
- coefficient 5 dBi gain
- BPSK, QPSK, 16QAM, 64QAM
- 128-QAM, 256-QAM
- external PSU (optional)
- PoE power supply, 12V DC



External access points

QWO-95-AC-VC

- 2.412-2.472 and 5.180-5.825 GHz
- 300/900 Mbps
- 802.11 a / b / g / n / ac
- PoE 802.3at
- 2x2 MIMO
- BPSK, QPSK, 16QAM, 64QAM
- PoE power (injector optional), 48V DC
- running controller



QWO-95-AC

- 2.412-2.472 and 5.180-5.825 GHz
- 300/900 Mbps
- 802.11 a / b / g / n / ac
- PoE 802.3at
- 2x2 MIMO
- BPSK, QPSK, 16QAM, 64QAM
- PoE power (injector optional), 48V DC



Subscriber terminals

QWO-880-CPE

- External subscriber device
- 5.18-5.825 GHz
- 300 Mbps
- 802.11 a / n
- PoE 802.3af
- 2x2 MIMO
- OFDM = BPSK, QPSK, 16-QAM, 64-QAM, DSSS = DBPSK, DQPSK, CCK
- coefficient gain 15 dBi
- external power supply
- PoE power, 24V DC



QWO-320-AC-CPE

- External subscriber device
- 2.312-2.4835 and 5.180-5.825 GHz
- 300/900 Mbps
- 802.11 a / b / g / n / ac
- PoE 802.3at
- 2x2 MIMO
- OFDM = BPSK, QPSK, 16-QAM, 64-QAM, DSSS = DBPSK, DQPSK, CCK
- coefficient gain 18 dBi
- OFDM = BPSK, QPSK, 16-QAM, 64-QAM, DSSS = DBPSK, DQPSK, CCK
- external PSU (optional)
- PoE power, 48V DC



QWO-830-CPE

- External subscriber device
- 2.312-2.4835 GHz
- 300 Mbps
- 802.11 a / n
- PoE 802.3af
- 2x2 MIMO
- OFDM = BPSK, QPSK, 16-QAM, 64-QAM, DSSS = DBPSK, DQPSK, CCK
- coefficient gain 14 dBi
- external power supply
- PoE power, 24V DC



QWO-320-AC-CPE-VC

- External subscriber device
- 2.312-2.4835 and 5.180-5.825 GHz
- 300/900 Mbps
- 802.11 a / b / g / n / ac
- PoE 802.3at
- 2x2 MIMO
- OFDM = BPSK, QPSK, 16-QAM, 64-QAM, DSSS = DBPSK, DQPSK, CCK
- coefficient gain 18 dBi
- OFDM = BPSK, QPSK, 16-QAM, 64-QAM, DSSS = DBPSK, DQPSK, CCK
- external PSU (optional)
- PoE power, 48V DC
- running controller



Access Point Controllers

QWC-WM

QTECH Virtual Universal Wi-Fi Controller (QWC-WM) is a platform for managing Wi-Fi networks of any scale, built on QTECH access points of internal and external performance. This is a fully software solution that can be installed both in the client's local network and in the operator's cloud or service provider



SUBSCRIBER EQUIPMENT

4G LTE STATIONARY ROUTERS

QMO-234

QMO-234 is a modem (router) for providing wireless Internet access through a network of telecom operators 2G / 3G / 4G (LTE) in places with no developed cable infrastructure.

The QMO-234 kit includes two devices - an outdoor unit with a built-in directional antenna with a high gain ("outdoor" LTE module) and an indoor unit with Wi-Fi function (subscriber module).

To access the Internet, you can use any device with an RJ-45 interface (Ethernet) and / or a wireless Wi-Fi interface - PCs, phones, tablets, etc.



- ψ Support 2G / 3G / 4G (LTE) network connection.
- ψ WLAN, ease of use and installation.
- ψ Management and configuration via the WEB interface.
- ψ Built-in statistics of network traffic.
- ψ Ability to simultaneously connect over Wi-Fi more than 10 devices.
- ψ Two built-in antennas to increase network coverage.
- ψ Support L2TP, PPPOE.
- ψ Remote network management.
- ψ Remote software update via WEB interface.

QMO-I21

4G router is designed to provide Internet access in places with a lack of developed cable infrastructure. The router allows you to connect an analog phone using the FXS port and use the services of SIP telecom operators. The presence of 4 LAN ports will allow for the connection of network devices such as PCs, network printers, etc.



- ψ Support TDD-LTE / FDD-LTE standards
- ψ Support for IEEE 802.3, IEEE 802.3u, IEEE 802.11 b / g / n
- ψ USIM slot
- ψ Support VoLTE / CSFB / VoIP
- ψ Support 2 * RJ11 (Voice)
- ψ Support 4 * RJ45 (Ethernet)
- ψ On / off button
- ψ Factory Reset Button

CCTV EQUIPMENT



CERTIFICATE

transport safety

No. 909

Camcorder Classifier

QVC - IPC - 20 1 ASZ (2.8-12) QVC - AC - 20 1 (2.8-12)

QVC - video camera QTECH IPC - video camera IP

AC - Multi-format Analog Camcorder

13,20,40,50,80 - video camera resolution (3,2,4,5,8)

1,2,3 - HOUSING TYPE: 1 Cylinder, 2 Ball in a glass, 3 Dome, 4 PTZ, 5 box, 6-compact V - anti-vandal design,

Z - Motorized Zoom, A - Audio, S - Starlight Sensor, DC - Version without POE

2.8-12 - Lens

DVR Classifier

QVC - XVR - 2 16 / 1080P QVC - NVR - 1 04 / 2MP - 4POE

QVC - DVR QTECH NVR - IP DVR XVR - 5 in 1 multi-format DVR

1,2,4 - The number of hard drives (HDD)

04.08.16 - The number of channels / 720P / 1080P / - support for the maximum resolution of analog video cameras

/ 2MP / 5MP / 8MP - support for maximum resolution of IP video cameras

4POE, 8POE - support for integrated POE ports

IP CAMERAS

Fixed Lens Dome Cameras

- Resolution from 2 megapixels to 8 megapixels
- H.264 / 265 / MJPEG video compression
- IR illumination range from 20 to 30 m
- Lens 2.8; 4
- Power 12V or 12V / POE
- Internal and external execution



Vandal-resistant Dome Cameras with Varifocal Lens

- Resolution from 2 to 8 megapixels
- H.264 / 265 / MJPEG video compression
- IR range up to 40 m
- 2.8-12 or 3.3-12 lens
- Power 12V / POE
- External execution



Cylindrical cameras with a fixed lens

- Resolution from 2 megapixels to 8 megapixels
- H.264 / 265 / MJPEG video compression
- IR illumination range from 20 to 30 m
- Lens 2.8; 3.6; 4
- Power 12V or 12V / POE
- External execution



Cylindrical camcorders with varifocal lens

- Resolution from 2 to 8 megapixels
- H.264 / 265 / MJPEG video compression
- IR illumination range from 40 to 80m
- Lens 2.8-12; 3.3-12; 5-50
- Power 12V / POE
- External execution



Fixed Dome Mini Camcorders

- Resolution from 2 to 4 megapixels
- H.264 / 265 / MJPEG video compression
- IR illumination range from 20 to 25m
- 2.8 lens
- Power 12V / POE
- Internal and external execution
- Built-in microphone



Speed PTZ Camcorders

- Resolution from 2 to 5MP
- H.264 / 265 / MJPEG video compression
- IR illumination range from 45 to 240 m
- Lens from 4x to 40x
- Power 12V or 12V / POE
- External execution



Fisheye camcorders

- Resolution from 5 to 8 megapixels
- H.264 / 265 / MJPEG video compression
- IR range up to 5 m
- Power 12V / PoE



Compact IP video camera

- Resolution 2 MP
- H.264 / 265 video compression
- Wi-Fi 2.4GHz
- Power 12V (Post) / POE



IP DVRs

IP DVRs without POE ports

- ψ Video compression format
H.264 / H.265
- ψ Recording Resolution up to 8MP
- ψ Number of channels from 4 to 128
- ψ HDD slots 1 to 8
- ψ Mobile iOS / Android platforms
- ψ Cloud Services P2P, Dropbox,
Google Drive



IP DVRs with POE Ports

- ψ Video compression format
H.264 / H.265
- ψ Recording Resolution up to 8MP
- ψ Number of channels from 4 to 32
- ψ HDD slots 1 to 2
- ψ Mobile iOS / Android platforms
- ψ Cloud Services P2P, Dropbox,
Google Drive
- ψ POE Ports 4 to 16



MULTIFORM ANALOGUE CAMERAS

Dome Cameras

- ψ Resolution from 1 to 5 megapixels
- ψ TVI, AHD, CVI, CVBS format
- ψ IR illumination from 20 to 35 m
- ψ Lens 2.8; 2.7-12; 2.8-12
- ψ 12V power
- ψ Internal and external execution



Speed PTZ Dome Cameras

- ψ Resolution 2 MP
- ψ AHD format
- ψ IR LED up to 120m
- ψ X22 lens
- ψ 12V power
- ψ External execution



Cylindrical Camcorders

- ψ Resolution from 1 to 5 megapixels
- ψ TVI, AHD, CVI, CVBS format
- ψ IR illumination from 20 to 60 m
- ψ Lens 2.8; 2.7-12; 2.8-12
- ψ 12V power
- ψ External execution



MULTI-VIDEO RECORDERS

720 / 1080N multi format DVRs

- ψ Format TVI, AHD, CVI, CVBS, IP
- ψ 720P / 1080N Recording Resolution
- ψ Number of channels from 4 to 16
- ψ HDD slots 1 to 2
- ψ Mobile iOS / Android platforms
- ψ Cloud Services P2P, Dropbox, Google Drive



1080P Multi Format DVRs

- ψ Format TVI, AHD, CVI, CVBS, IP
- ψ 720P / 1080P Recording Resolution
- ψ Number of channels from 4 to 32
- ψ HDD slots 1 to 2
- ψ Mobile iOS / Android platforms
- ψ Cloud Services P2P, Dropbox, Google Drive



5 megapixel multi-format DVRs

- ψ Format TVI, AHD, CVI, CVBS, IP
- ψ Recording Resolution up to 5 MP
- ψ Number of channels from 4 to 16
- ψ Mobile iOS / Android platforms
- ψ Cloud Services P2P, Dropbox, Google Drive



4K multi-format DVRs

- ψ Format TVI, AHD, CVI, CVBS, IP
- ψ Recording Resolution up to 4K
- ψ Number of channels from 4 to 16
- ψ Mobile iOS / Android platforms
- ψ Cloud Services P2P, Dropbox, Google Drive



ADDITIONAL EQUIPMENT AND ACCESSORIES

Mounts

- ψ Ceiling
- ψ Corner
- ψ Pole mounts



Control panels

- ψ To control analog camcorders
- ψ To control IP PTZ cameras



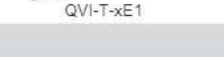
Microphones

- ψ Supply voltage DC 9-12V
- ψ Consumption 15-20mA
- ψ Bandwidth up to 100-100000Hz
- ψ 600 ohm resistance

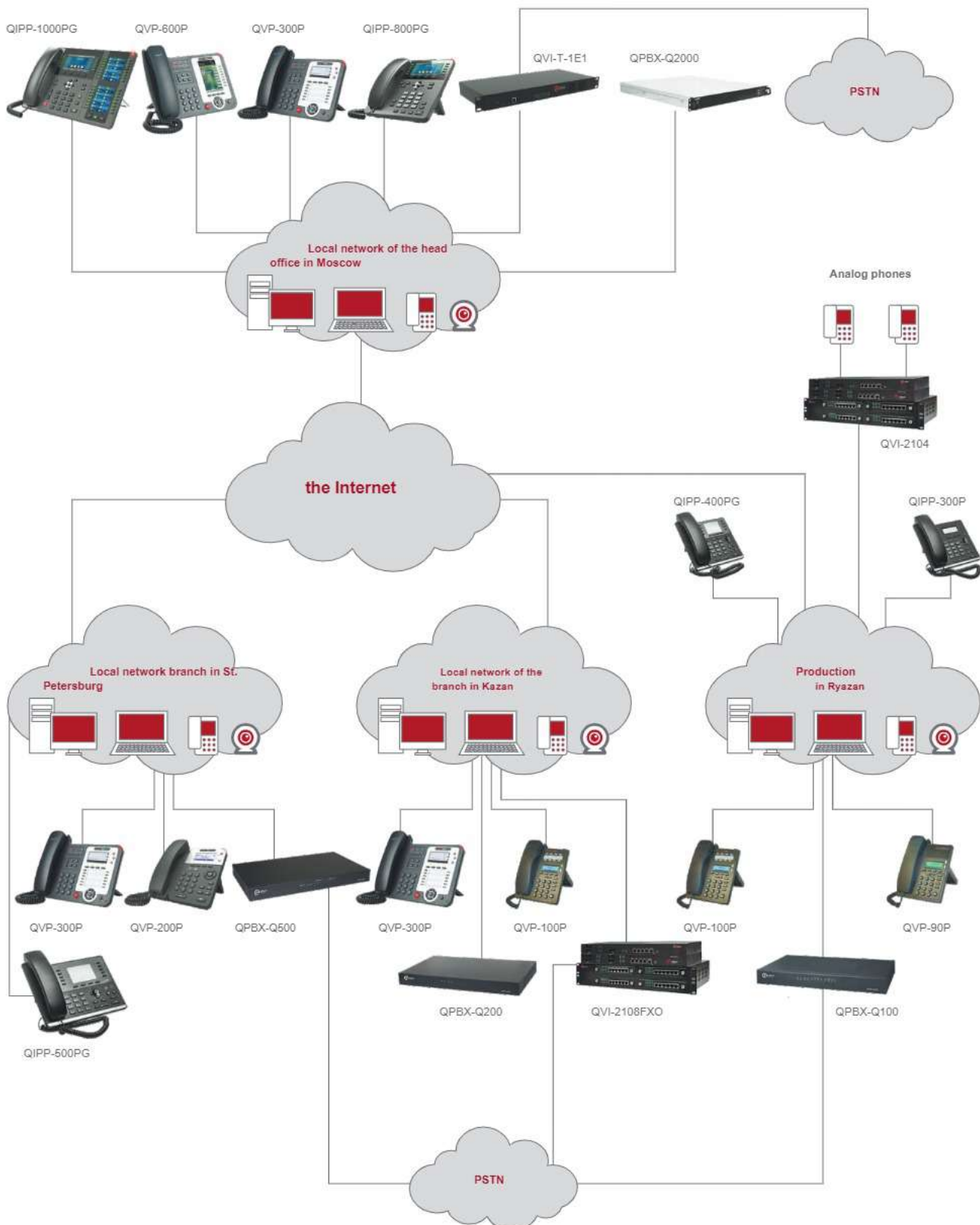


VoIP EQUIPMENT

SMB segment		
IP PBX	IP Phone	VoIP Gateway
		
QPBX-Q30	QIPP-300 / 300P	
		
QPBX-Q100	QIPP-400P / 400PG	
		
	QIPP-500PG	
		
	QIPP-800PG	
Fields of application		
Small offices, branches of medium and large enterprises, telecom operators, the public sector		

Enterprise Segment		
IP PBX	IP Phone	VoIP Gateway
		
QPBX-Q200	QIPP-400P / PG	
		
QPBX-Q500	QIPP-500PG	
		
QPBX-Q2000	QIPP-800PG	
		
QPBX-QX	QIPP-1000PG	
		
		
		
Fields of application		
Medium and large enterprises, data centers, telecom operators, construction segment		

AN EXAMPLE OF BUILDING A MEDIUM OR LARGE ENTERPRISE TELEPHONY NETWORK



VoIP EQUIPMENT. PHONES

IP Phone QVP-90 / 90P

- ψ VoIP Protocol - SIP v1 (RFC2543), SIP v2 (RFC3261)
- ψ The number of SIP lines - 2
- ψ 128 x 64 LCD with backlight
- ψ Source of power
 - AC adapter AC 100-240V to DC 5V 1A
 - PoE (IEEE 802af) for the QVP-90P
- ψ Connectors and Ports
 - 2 x RJ45 10 / 100M Ethernet (LAN / PC)
 - Handset jack
 - Power connector



IP Phone QVP-100 / 100P

- ψ VoIP Protocol - SIP v1 (RFC2543), SIP v2 (RFC3261)
- ψ The number of SIP lines - 2
- ψ 128 x 64 LCD with backlight
- ψ 8 buttons with light indication (BLF)
- ψ Source of power
 - AC adapter AC 100-240V to DC 5V 1A
 - PoE (IEEE 802af) for the QVP-100P
- ψ Connectors and Ports
 - 2 x RJ45 10 / 100M Ethernet (LAN / PC)
 - Handset jack
 - Power connector
 - Headset jack RJ9



IP Phone QVP-200 / 200P / 300S / 300SG

- ψ VoIP Protocol - SIP v1 (RFC2543), SIP v2 (RFC3261)
- ψ The number of SIP lines - 2
- ψ 132 x 64 LCD with backlight
- ψ Source of power
 - AC adapter AC 100-240V to DC 5V 1A
 - PoE (IEEE 802af) for the QVP-200P
- ψ Connectors and Ports
 - 2 x RJ45 10 / 100M Ethernet (LAN / PC)
 - Handset jack
 - Power connector
 - Headset jack RJ9



IP Phone QVP-300P

- ψ VoIP Protocol - SIP v1 (RFC2543), SIP v2 (RFC3261)
- ψ The number of SIP lines - 3
- ψ 132 x 64 LCD with backlight
- ψ 12 buttons with light indication (BLF)
- ψ Source of power
 - AC adapter AC 100-240V to DC 12V 1A
 - PoE (IEEE 802af)
- ψ Connectors and Ports
 - 2 x RJ45 10/100 / 1000M Ethernet (LAN / PC)
 - Handset jack
 - Power connector
 - RJ9 and 3.5mm headset jack



IP Phone QVP-600P

- ψ VoIP Protocol - SIP v1 (RFC2543), SIP v2 (RFC3261)
- ψ The number of SIP lines - 8
- ψ 4.3-inch color LCD with a resolution of 480 x 272
- ψ 8 buttons with light indication (BLF)
- ψ Source of power
 - AC adapter AC 100-240V to DC 12V 1A
 - PoE (IEEE 802af)
- ψ Connectors and Ports
 - 2 x RJ45 10/100 / 1000M Ethernet (LAN / PC)
 - Handset jack
 - Power connector
 - RJ9 and 3.5mm headset jack



IP Phone QVP-80P

- ψ VoIP Protocol - SIP v1 (RFC2543), SIP v2 (RFC3261)
- ψ The number of SIP lines - 2
- ψ 128 x 64 LCD with backlight
- ψ Source of power
 - AC adapter AC 100-240V to DC 5V 1A
 - PoE (IEEE 802af)
- ψ Connectors and Ports
 - 2 x RJ45 10 / 100M Ethernet (LAN / PC)
 - RJ9 and 3.5mm headset jack
 - Power connector
 - USB port for power connection



QSM-20 Expansion Panel

- ψ 20 physical keys, each with a two-color LED
- ψ 480x272 color graphic LCD
- ψ 2 independent control keys for quick page switching
- ψ Adjustable angle
- ψ Support for connecting up to 3 expansion modules
- ψ Support for uploading photos to custom



QSM-32 Expansion Panel

- ψ 32 programmable keys
- ψ BLF subscriber status information designation
- ψ Power the first panel from the phone
- ψ Possibility of cascading installation of up to 3 panels in a chain





IP Phone QIPP-300 / 300P

- ψ High quality plastic
- ψ VoIP Protocol - SIP v1 (RFC2543), SIP v2 (RFC3261)
- ψ The number of SIP lines - 2
- ψ 132 x 64 LCD with backlight
- ψ Source of power:
 - AC adapter AC 100-240V to DC 5V 1A
 - PoE (IEEE 802af) for the QIPP-300P
- ψ Connectors and Ports:
 - 2 x RJ45 10 / 100M Ethernet (LAN / PC)
 - Slot for connecting an expansion module



IP Phone QIPP-400P / 400PG

- ψ High quality plastic
- ψ VoIP Protocol - SIP v1 (RFC2543), SIP v2 (RFC3261)
- ψ The number of SIP lines - 4
- ψ 2.8-inch color LCD with backlight
- ψ Source of power:
 - AC adapter AC 100-240V to DC 5V 1A
 - PoE (IEEE 802af)
- ψ Connectors and Ports:
 - 2 x RJ45 10/100 / 1000M Ethernet (LAN / PC) for QIPP-400PG



IP Phone QIPP-500PG

- ψ High quality plastic
- ψ VoIP Protocol - SIP v1 (RFC2543), SIP v2 (RFC3261)
- ψ The number of SIP lines - 6
- ψ 3.5-inch color LCD with backlight
- ψ Source of power:
 - AC adapter AC 100-240V to DC 5V 1A
 - PoE (IEEE 802af)
- ψ Connectors and Ports:
 - 2 x RJ45 10/100 / 1000M Ethernet (LAN / PC)



IP Phone QIPP-800PG

- ψ 6 SIP lines
- ψ HD Voice
- ψ 4.3 "color screen
- ψ Support PoE and 1GB Ethernet
- ψ Support for working with a headset (including wireless) / headphones
- ψ Desktop / Wall Mount
- ψ Ability to connect an external power source (ordered separately)



IP Phone QIPP-1000PG

- ψ One primary and two additional color displays for DSS programmable keys
- ψ 20 SIP lines
- ψ Support PoE and 1GB Ethernet
- ψ Video Call Support (Receive)
- ψ Up to 106 programmable keys
- ψ Compatible with major telephony systems



Videophone QIPP-V600PG

- ψ Display: 7 inch touch screen
- ψ Built-in camera for video calls
- ψ Up to 128 virtual keys on DSS display
- ψ Android 4.2
- ψ Support for third-party Android applications
- ψ 2-port 10/100/1000 LAN
- ψ USB port
- ψ HDMI port
- ψ PoE Support



VoIP EQUIPMENT. IP PBX QPBX SERIES

IP PBX QPBX-Q30

- ψ High quality communication with the possibility of using alternative channels
- ψ Easy web-based configuration and centralized management
- ψ Superior system scalability
- ψ Simple conferencing for a large number of subscribers
- ψ Fast payback of mini-IP-PBX by reducing the cost of communication services



IP PBX QPBX-Q100

- ψ High quality communication with the possibility of using alternative channels
- ψ Easy web-based configuration and centralized management
- ψ Superior system scalability
- ψ Simple conferencing for a large number of subscribers
- ψ Ability to install expansion modules: 4FXS / 4FXO / 4GSM / 4BRI



IP PBX QPBX-Q200

- ψ High quality communication with the possibility of using alternative channels
- ψ Easy web-based configuration and centralized management
- ψ Superior system scalability
- ψ Simple conferencing for a large number of subscribers
- ψ Ability to install expansion modules: 4FXS / 4FXO / 4GSM / 4BRI / PRI



IP PBX QPBX-Q500

- ψ High quality communication with the possibility of using alternative channels
- ψ Easy web-based configuration and centralized management
- ψ Superior system scalability
- ψ Simple conferencing for a large number of subscribers
- ψ Ability to install expansion modules: 4FXS / 4FXO / 4GSM / 4BRI / 2PRI



IP PBX QPBX-Q2000

- ψ High quality communication with the possibility of using alternative channels
- ψ Easy web-based configuration and centralized management
- ψ Superior system scalability
- ψ Simple conferencing for a large number of subscribers



QPBX-QX

IP PBX QPBX-QX is a distributed communication solution, cluster PBX, including a configuration server and several call processing servers. High fault tolerance of the system is achieved by adding additional servers to the cluster, which can be located both on the site of an existing installation and on a geographically remote site, thereby providing geo-redundancy.



Modules available to order:

QPBX-Q30-1FXS / 1FXO IP PBX for up to 30 SIP subscribers, 15 simultaneous calls, 1FXS / 1FXO, 220V power supply through the adapter. QPBX-Q30-2FXO IP PBX up to 30 SIP subscribers, 15 simultaneous calls, 2FXO, 220V power through the adapter QPBX-Q30-2FXS IP PBX up to 30 SIP subscribers, 15 simultaneous calls, 2FXS, 220V power through the QPBX-Q100 IP PBX adapter 100 SIP subscribers, 30 simultaneous calls, 220V power through QPBX-Q200 IP PBX adapter up to 200 SIP subscribers, 60 simultaneous calls, 220V power through QPBX-Q200 IP PBX adapter up to 500 SIP subscribers, 100 simultaneous calls, 220V power through adapter

VoIP EQUIPMENT. VOICE GATEWAYS

Voice gateways QVI-2101/2102

- ψ The lineup
 - QVI-2101 - 1 x FXS (Rj11), 2 x 10 / 100Base-T LAN / WAN
 - QVI-2102 - 2 x FXS (Rj11), 2 x 10 / 100Base-T LAN / WAN
- ψ Number of simultaneous calls - up to 2
- ψ Protocols and codecs - SIP v2, G.711A / U Law, G.723.1, G.729A / B, G.722



QVI-2xxx Voice Gateways

- ψ The lineup
 - QVI-2104 - 4 x FXS (Rj11), 2 x 10 / 100Base-T LAN / WAN
 - QVI-2108 - 8 x FXS (Rj11), 2 x 10 / 100Base-T LAN / WAN
 - QVI-2116 - 16 x FXS (Rj11), 2 x 10 / 100Base-T LAN / WAN
 - QVI-2124 - 24 x FXS (Rj11), 2 x 10 / 100Base-T LAN / WAN
 - QVI-2148 - 48 x FXS (Rj11), 2 x 10 / 100Base-T LAN / WAN
 - QVI-2164 - 64 x FXS (Rj11), 2 x 10 / 100Base-T LAN / WAN
 - QVI-2172 - 72 x FXS (Rj11), 2 x 10 / 100Base-T LAN / WAN
- ψ Protocols and codecs - SIP v2 (RFC3261), G.711A / U Law, G.723.1, G.729A / B, G.722



Voice gateways QVI-3112

- ψ Chassis and cards
 - QVI-3112-CH - Voice Gateway Chassis, 15 Slots, 3U
 - QVI-3112-MB112 - control card for 112 simultaneous calls
 - QVI-3112-8S - card for 8 FXS ports
- ψ Protocols and codecs - SIP v2 (RFC3261), G.711A / U Law, G.723.1, G.729A / B, G.722



QVI-2104/2108/2116-FXO Voice Gateways

- ψ The lineup
 - QVI-2104FXO - 4 x FXO (Rj11), 1 x 10 / 100Base-T LAN / WAN
 - QVI-2108FXO - 8 x FXO (Rj11), 4 x 10 / 100Base-T LAN / WAN
 - QVI-2116FXO - 16 x FXO (Rj11), 5 x 10 / 100Base-T LAN / WAN
- ψ Protocols and codecs - SIP v2 (RFC3261), H.248 (MEGACO), G.711A / U Law, G.723.1, G.729A / B, G.722



QVI-T-xE1 Voice Gateways

- ψ The lineup
 - QVI-T-1E1 - 1 x E1 (RJ45 / BNC), 2 x 10 / 100Base-T LAN / WAN
 - QVI-T-4E1 - 4 x E1 (RJ45 / BNC), 2 x 10 / 100Base-T LAN / WAN
 - QVI-T-8E1 - 8 x E1 (RJ45 / BNC), 2 x 10 / 100Base-T LAN / WAN
 - QVI-T-63E1 - 63 x E1 (RJ45 / BNC), 2 x 10 / 100Base-T LAN / WAN
- ψ Protocols and codecs - SIP v2, SIP-T, H.323, G.711, G.723, G.729A / B
- ψ Alarm - ISDN PRI / OKC-7 (SS7)



DWDM EQUIPMENT

Chassis QWM-8000 v1

QWM-8000-6U / 16

- ψ 16 slots
- ψ 6U
- ψ Power Supply AC-AC / AC-DC / DC-DC
- ψ Management card
- ψ WEB GUI, QNMS, Telnet, SNMP



QWM-8000-2.5U / 8

- ψ 8 slots
- ψ 2.5U
- ψ Power Supply AC-AC / AC-DC / DC-DC
- ψ Management card
- ψ WEB GUI, QNMS, Telnet, SNMP



QWM-8000-1.25U / 5

- ψ 5 slots
- ψ 1.25U
- ψ Power Supply AC-AC / AC-DC / DC-DC
- ψ Management card
- ψ WEB GUI, QNMS, Telnet, SNMP



QWM-8000-1U / 1

- ψ 1 slot
- ψ 1U
- ψ Power Supply AC-AC / AC-DC / DC-DC
- ψ Integrated control
- ψ WEB GUI, QNMS, Telnet, SNMP



OEO 3R Cards

- ψ 10GE / 1GE;
- ψ STM-64 / STM-16 / STM-4 / STM-1;
- ψ 8GFC / 10GFC;
- ψ Client at wavelengths (850, 1310, 1550 nm);
- ψ Linear on the CWDM / DWDM range;
- ψ Support on all types of chassis QWM-8000

QWM-8000-2XFP / 2XFP
 QWM-8000-2SFP + / 2XFP
 QWM-8000-2SFP + / 2SFP +
 QWM-8000-4SFP + / 4SFP +
 QWM-8000-P-2XFP / 2XFP
 QWM-8000-P-2SFP + / 2XFP
 QWM-8000-P-2SFP + / 2SFP +
 QWM-8000-4SFP / 4SFP
 QWM-8000-TMUX8G
 QWM-8000-P-TMUX8G

Line card 2 * XFP in 2 * XFP Line card 2 * SFP + in 2 * XFP Line
 card 2 * SFP + in 2 * SFP + Line card 4 * SFP + in 4 * SFP + Line
 card 2 * XFP in 2 * XFP (with protection 1+1) Line card 2 * SFP +
 in 2 * XFP (with protection 1+1) Line card 2 * SFP + in 2 * SFP +
 (with protection 1+1) Line card 4 * SFP in 4 * SFP (10Mb ~ 2.5Gb /
 s) Line card muxponder 8 * 1.25G in 1 * 10G XFP Line card
 muxponder 8 * 1.25G in 2 * 10G XFP (with protection 1+1)



MUX / DEMUX Cards

- ψ Low attenuation
- ψ Various technology options (TFF / AAWG / TAWG)
- ψ Availability of MON / UPG ports
- ψ Various design options (1U housing / ABS / LGX)



QWM-8000-ODM4 * 2	DWDM I / O card for 4 channels, 100 GHz, 2 fiber line DWDM I / O card for 8 channels, 100 GHz, 2 fiber line
QWM-8000-ODM8 * 2	DWDM I / O card for 16 channels, 100 GHz, 2 fiber DWDM line Card mux / demux for 4 channels (2 services),
QWM-8000-ODM16 * 2	100 GHz, 1st fiber line DWDM card mux / demux for 4 channels (4 services), 100 GHz, 1 fiber line DWDM Card
QWM-8000-OD / OM4 * 1	mux / demux for 16 channels (8 services) , 100GHz, 1st fiber line DWDM TAWG card for 40 channels (20
QWM-8000-OD / OM8 * 1	services), 100GHz, 1st fiber line DWDM card AAWG for 40 channels (20 services), 100GHz, 1st fiber line DWDM
QWM-8000-OD / OM16 * 1	TAWG card for 48 channels (24 servings ow), 100 GHz, 1st fiber line DWDM AAWG card for 48 channels (24
QWM-8000-TAWG40 * 1	services), 100GHz, 1st fiber line CWDM Card mux / demux for 4 channels (2 services), 1st fiber line CWDM Card
QWM-8000-AAWG40 * 1	mux / demux for 8 channels (4 services),
QWM-8000-TAWG48 * 1	
QWM-8000-AAWG48 * 1	
QWM-8000-COD / OM4 * 1	
QWM-8000-COD / OM8 * 1	
QWM-8000-COD / OM16 * 1	

Amplifiers EDFA

- ψ Boosters BA;
- ψ Linear LA,
- ψ PA preamplifiers
- ψ EDFA with BLUE / RED filters
- ψ Low NF (~ 5 dB)
- ψ Spectrum Gain Smoothing Filter (GFF)
- ψ Various operating modes: AGC, APC, ACC
- ψ Compatible with any type of chassis QWM-8000



QWM-8000-BA16 / 12	Booster (C-band EDFA, output power: 16dBm, gain 12db, 40 channels)
QWM-8000-BA16 / 12-BR	Booster (C-band EDFA, output power: 16dBm, gain 12db, 40 channels and PASS blue / REFLECTION red filter)
QWM-8000-BA16 / 12-RB	Booster (C-band EDFA, output power: 16dBm, power gain: 16dBm, gain 12db, 40 channels and REFLECTION blue / PASS red filter)
QWM-8000-BA20 / 12	Booster (C-band EDFA, output power: 20dBm, gain 12db, 40 channels)
QWM-8000-BA20 / 12-BR	Booster (C-band EDFA, output power: 20dBm, gain 12db, 40 channels and PASS blue / REFLECTION red filter)
QWM-8000-BA20 / 12-RB	Booster (C-band EDFA, output power: 20dBm, gain 12db, 40 channels and REFLECTION blue / PASS red filter)
QWM-8000-PA16 / 25	Preamplifier (C-band EDFA, output power: 16dBm, gain 25db, 40 channels)
QWM-8000-LA16 / 25	Line amplifier (C-band EDFA, output power: 16dBm, gain 25db, 40 channels)
QWM-8000-PA20 / 25	Preamplifier (C-band EDFA, output power: 20dBm, gain 25db, 40 channels)
QWM-8000-LA20 / 25	Line amplifier (C-band EDFA, output power: 20dBm, gain 25db, 40 channels)
QWM-8000-LA20 / 25-BR	Line amplifier (C-band EDFA, output power: 20dBm, gain 25db, 40 channels and PASS blue / REFLECTION red filter)
QWM-8000-LA20 / 25-RB	Line amplifier (C-band EDFA, output power: 20dBm, gain 25db, 40 channels and REFLECTION blue / PASS red filter)



Optional Cards

QWM-8000-OPM Monitoring Board

- Management Support: QNMS, SNMP, TELNET, WEB GUI
- Real-time graphical display of optical channels
- Optical power measurement at standard wavelengths DWDM ITU-T
- On 1/2/4/8 monitoring ports



OLP Protection Card QWM-8000-OLP

QWM-8000-OPM Monitoring Board

- 1 + 1 reservation
- 1: 1 reservation
- Option with BLUE / RED filters
- Management Support: QNMS, SNMP, CLI, TELNET, WEB GUI
- Switching time less than 50ms
- Application: Back up on the line side
- Application: Back up on the client side
- Application: Back up on a 1-fiber link
- Application: Back up on a 2-fiber link



SDH / PDH EQUIPMENT

SDH / PDH Platform QBM-S43-V2P / V2P4

- QBM-S43-V2P / V2P4 is an SDH / MSPP (Multiservice Provisioning Platform) carrier-class platform in a compact design
- Compact, three or four RU
- High throughput, up to and including STM-16
- Implementation of a backplane bus with redundant buses to each slot
- A complete set of backup mechanisms
- Support 1 + 1 MSP, SNCP protection
- Control channels via DCC / E1 / VC12, the ability to transfer control channels of third-party SDH equipment
- E1 BERT test
- Internal synchronization / external synchronization / synchronization from the linear interface, special synchronization connector
- Ethernet service supports GFP encapsulation, VC12 or VC4 virtual link, LCAS, P VLAN, 802.1Q VLAN and QinQ
- High capacity switching matrix. 96 * VC-4 at the level of VC-4 switching
- 32 * VC-4 at the level of VC-12 or VC-3 switching



MEDIA CONVERTERS

Industrial media converter with 1 10 / 100Base-TX port and 1 100Base SFP port QFC-MM1DSFP-I

- ▣ 1 RJ-45 port (Auto MDI / MDIX) 10/100 Mbps
- ▣ 1 100 Mbps SFP Port
- ▣ Surge protection up to 4 kV
- ▣ MDI / MDIX Auto Detection Support
- ▣ Flow Control: IEEE 802.3x (Duplex), Back Pressure (Half Duplex)
- ▣ Compatible with IEEE 802.3 10Base-T and IEEE 802.3u 100Base-TX
- ▣ degree of protection Ip40
- ▣ Operating Temperature: -40 - 85 ° C



Industrial media converter with 4 10 / 100Base-TX ports and 1 100Base SFP port and PoE support QFC-MM1DSFP4FE-IAF15 • PoE function support on RJ45 ports

- ▣ Support PoE function on Rj45 ports
- ▣ 4 RJ-45 ports (MDI / MDIX auto-detection) 10/100 Mbps
- ▣ 1 100 Mbps SFP Port
- ▣ Surge protection up to 4 kV
- ▣ MDI / MDIX Auto Detection Support
- ▣ Flow Control: IEEE 802.3x (Duplex), Back pressure (Half Duplex)
- ▣ Compatible with IEEE 802.3 10Base-T and IEEE 802.3u 100Base-TX
- ▣ Maximum power: up to 15.4 W for IEEE 802.3af standard, up to 30 W for IEEE 802.3at standard
- ▣ Store-and-Forward Switching Mechanism
- ▣ Operating Temperature: -40 - 85 ° C



Industrial media converter with 1 10/100 / 1000Base-TX port and 1 1000Base SFP port QFC-MM1GDSFP-I • PoE function support on RJ45 port

- ▣ 1 RJ-45 port (Auto MDI / MDIX) 10/100/1000 Mbps
- ▣ 1 1000 Mbps SFP Port
- ▣ Surge protection up to 4 kV
- ▣ MDI / MDIX Auto Detection Support
- ▣ Flow Control: IEEE 802.3x (Duplex), Back Pressure (Half Duplex)
- ▣ Compatible with IEEE 802.3 10Base-T and IEEE 802.3u 1000Base-TX
- ▣ Store-and-Forward Switching Mechanism
- ▣ Operating Temperature: -40 - 85 ° C



Media converters of various designs

- ▣ Managed Media Converters for Star Topology
- ▣ Managed Media Converters for Point-to-Point Topology
- ▣ Unmanaged media converters for point-to-point topology
- ▣ Unmanaged media converters for star topology
- ▣ Non-Industrial Media Converters with POE
- ▣ Industrial Media Converters
- ▣ Industrial Media Converters with POE
- ▣ Media converters-switches for a ring topology with a guaranteed strip to each point



SOURCES

UNINTERRUPTED POWER SUPPLY

Lis	Lil	OLS
		
Fields of application		
Small offices, SMB, video surveillance systems		Medium and large enterprises, telecom operators

Line-interactive UPS 500-800BA

UPS LIS Series

- ψ Microprocessor control
- ψ Equipped with LED or LCD display
- ψ AVR function to stabilize input voltage
- ψ Easy battery replacement
- ψ Compact size, ergonomic design and light weight
- ψ RS232 communication interface for working with a computer
- ψ Battery protection (overcharge)
- ψ Overload, overvoltage protection
- ψ Cold start capability
- ψ Autorestart
- ψ The solution is great for offices / SMB / CCTV systems



UPS Line-interactive 1000-2000BA

UPS LIS Series

- ψ Microprocessor control
- ψ Equipped with LCD
- ψ AVR function to stabilize input voltage
- ψ Easy battery replacement
- ψ Compact size and light weight
- ψ RS232 communication interface for working with a computer
- ψ Battery protection (overcharge)
- ψ Overload, overvoltage protection
- ψ Cold start capability
- ψ Autorestart
- ψ Longer battery life
- ψ The solution is great for offices / SMB / CCTV systems



Line-interactive UPS 1000-2000BA

LIL Series UPS

- ψ Microprocessor control
- ψ Equipped with LED display
- ψ AVR function to stabilize input voltage
- ψ Up to three built-in batteries
- ψ Compact size and light weight
- ψ RS232 communication interface for working with a computer
- ψ Battery protection (overcharge)
- ψ Overload, overvoltage protection
- ψ Cold start capability
- ψ Autorestart
- ψ Longer battery life
- ψ The solution is great for offices / SMB / CCTV systems



UPS Line-interactive 1000-2000BA

LIL Series UPS

- ↳ Microprocessor control
- ↳ Equipped with LCD
- ↳ AVR function to stabilize input voltage
- ↳ Up to two built-in batteries
- ↳ Compact size and light weight
- ↳ RS232 communication interface for working with a computer
- ↳ Battery protection (overcharge)
- ↳ Overload, overvoltage protection
- ↳ Cold start capability
- ↳ Autorestart
- ↳ Longer battery life
- ↳ The solution is great for offices / SMB / CCTV systems



UPS ON-LINE 1000-6000BA

OLS Series UPS

- ↳ Dual conversion with pure sinusoidal output voltage
- ↳ Microprocessor control
- ↳ Informative front-panel LCD display, user-friendly interface
- ↳ Wide input voltage range without switching to rechargeable batteries (138 to 300 V)
- ↳ Cold start capability
- ↳ RS232 bidirectional communication interface for working with a computer. The package includes software.
- ↳ Low power consumption and high efficiency
- ↳ Low heat during long-term operation
- ↳ High reliability and fault tolerance of the device when working in harsh conditions
- ↳ Equipped with built-in high power charger.
- ↳ Equipped with manual and automatic "Bypass" function
- ↳ Hot swappable battery pack
- ↳ Battery protection (overcharge)
- ↳ Autorestart
- ↳ The solution is great for medium and large enterprises, telecom operators



INTERNET OF THINGS

BASIC STATIONS

Street Station Base Station QSH-ECP500M

- 8 multi-SF LoRa channels.
- Built-in GPS.
- Support Ethernet, 3G / 4G.
- Degree of protection of the Ip66 case.
- Receive Sensitivity (RX) of LoRa channel: -139 dBm.
- Power: PoE (IEEE 802.3af), 36-57 V DC.
- Antenna Connectors: Type N.
- Support for the LoRaWAN® 1.1 protocol.
- Support for Unicast and Multicast messages.
- Supports LoRaWAN Class A, B, and C.
- Beam / mast mount.



WATER METERING INSTRUMENTS

Universal PULS 15URM hot and cold water meter with LoRaWAN radio module

- Class A device.
- Frequency plan RU864.
- Built-in magnet detection sensor.
- Integrated tamper sensor.
- The diameter of the conditional passage is 15 mm.
- Installation length - 80 or 110 mm.
- Intertesting interval - 6 years.



ELECTRICITY METERS

Electronic electronic energy meter (single and three phase) with integrated LoRaWAN TSE2726A / TSE2727A radio module

- Frequency plan RU864.
- Class C device.
- OTAA activation method.
- Multi-tariff accounting (up to 4 tariffs).
- Built-in relay to limit power.
- LoRa channel reception sensitivity: up to -138dBm.
- Intertesting interval - 16 years.



HEAT METER

Ultrasonic heat meter with integrated LoRaWAN radio module PULSE STK-15-LW

- Frequency plan RU864.
- Class A device.
- OTAA activation method.
- LoRa channel reception sensitivity: up to -138dBm.
- Built-in antenna 2 dBi.
- The diameter of the conditional passage is 15 or 20 mm.



SENSORS AND MODEMS

Impulse Counter QSH-C500-P4

- ▣ 4 universal entrances (pulse or security).
- ▣ Removable battery.
- ▣ Built-in antenna 2 dBi.
- ▣ Class A device.
- ▣ Frequency plan RU864.
- ▣ Integrated tamper sensor.
- ▣ LoRa channel reception sensitivity: up to -138dBm.
- ▣ Battery life up to 8 years.



QSH-GS500 solid waste container monitoring sensor

- ▣ Removable battery.
- ▣ Built-in antenna 2 dBi.
- ▣ Class A device.
- ▣ Frequency plan RU864.
- ▣ LoRa channel reception sensitivity: up to -138dBm.
- ▣ Built-in rangefinder.
- ▣ Built-in accelerometer.
- ▣ Built-in temperature sensor.
- ▣ GPS / GLONASS receiver (option).



Hatch opening control sensor QSH-MH500S

- ▣ Built-in antenna 2 dBi.
- ▣ Class A device.
- ▣ Frequency plan RU864.
- ▣ LoRa channel reception sensitivity: up to -138dBm.
- ▣ Integrated tamper sensor.
- ▣ Removable battery.
- ▣ 4 channels for connecting penetration sensors (dry contacts).
- ▣ 2 channels for connecting temperature sensors.
- ▣ Limit switch, with coil spring.



QSH-SL500 PWM Lighting Control Modem

- ▣ Built-in antenna 2 dBi.
- ▣ Class C device.
- ▣ Frequency plan RU864.
- ▣ LoRa channel reception sensitivity: up to -138dBm.
- ▣ 2 PWM outputs.
- ▣ 2 inputs for monitoring the status of the driver.
- ▣ The activation method of OTAA or ABP.
- ▣ GPS / GLONASS receiver (option).



Fixed wireless button with LoRaWAN QSH-SB500S support

- ▣ Built-in antenna 2 dBi.
- ▣ Class C device.
- ▣ Frequency plan RU864.
- ▣ LoRa channel reception sensitivity: up to -138dBm.
- ▣ Removable battery.
- ▣ Four types of click scripts.

