

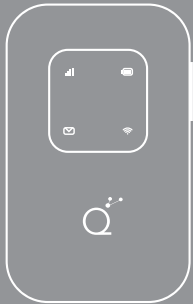


# HotSpot HS1

## LTE MIFI Pocket/Multi - Carrier

### Technical Specs

4G LTE  
CAT 4  
Wi-Fi 



<b>General Information</b>	TYPE (Specify type and technology: Handset, Modem, Router, MiFi,..., 2G, 3G, 4G, etc.) BRAND MODEL COMMERCIAL NAME SW VERSION HW VERSION	LTE MIFI Pocket  Quantum Connectivity HotSpot HS1 HotSpot HS1 HotSpot HS1_ALTAN Ver 1.2 Ver 1.0
<b>SIM</b>	SIM TYPE (Normal 2FF, MicroSIM 3FF, NanoSIM 4FF) SINGLE SIM / DUAL SIM support	Normal 2FF Single SIM
<b>Chipset</b>	BRAND MODEL NUMBER OF CORES & SPEED	MODEM ZTE ZX297520V3 Dual Core, 624MHz
<b>S.O</b>	OPERATIVE SYSTEM & VERSION	Linux 3.4.110
<b>Supported bands</b>	2G - GSM (Supported bands - MHz) 3G - UMTS (Supported bands - MHz) 4G - LTE (Supported bands - MHz)	Not supported B11 (1900MHz) & BV(850MHz) B2, B4 (AWS), B5, B7, B66 & B28ab (APT-700MHz)
<b>Throughput</b>	16QAM DL (Supported-Enabled / Supported-Disabled / Not Supported) 64QAM DL (Supported-Enabled / Supported-Disabled / Not Supported) 256QAM DL (Supported-Enabled / Supported-Disabled / Not Supported) 16QAM UL (Supported-Enabled / Supported-Disabled / Not Supported) 64QAM UL (Supported-Enabled / Supported-Disabled / Not Supported) MIMO 2x2 (Supported-Enabled / Supported-Disabled / Not Supported) MIMO 4x4 (Indicates in which LTE Bands supports MIMO 4x4) CARRIER AGGREGATION 2CC (DL) CARRIER AGGREGATION 3CC (DL) CARRIER AGGREGATION 4CC (DL) CARRIER AGGREGATION CA_28C (DL) MAXIMUM NUMBER OF COMPONENT CARRIERS IN DL MAXIMUM NUMBER OF COMPONENT CARRIERS IN UL	Supported-Enabled Supported-Enabled Not Supported  Supported-Enabled Not Supported MIMO2X2 Not Supported Not Supported Not Supported Not Supported Not Supported Not Supported Not Supported Not Supported
<b>IMS</b>	VoLTE (Supported-Enabled / Supported-Disabled / Not Supported) ViLTE(Supported-Enabled / Supported-Disabled / Not Supported) VoWiFi (Supported-Enabled / Supported-Disabled / Not Supported)	Not supported Not supported Not supported
<b>Main Features</b>	IP PROTOCOL DEFAULT (IPv4 only, IPv6 only, Dual Stack IPv4/IPv6) RAM MEMORY INTERNAL MEMORY (Specify total capacity and capacity available for end user) EXTERNAL MEMORY (Specify total capacity) Device screen: Size and Type GSMA TAC number BACK CAMERA (Megapixels) FRONT CAMERA (Megapixels) FLASH SUPPORT (BACK / FRONTAL) Fingerprint recognition Dual Band in WiFi (2.4GHz / 5GHz) TR069 (Visible & Editable) APN CORRECTION (apn could be corrected by network) NITZ SPN & ONS support (From SIM Card) RADIO FM (Internal antenna or headphones antenna) BLUETOOTH (Version) Wi-Fi (Version 802.11 a/b/g/n) HOTSPOT SMS BATTERY (MiliAmperes & Volts) / REMOVABLE OR INTERNAL	Supported 1Gb 1Gb(flash)  Not supported Not supported On behalf of Quantum Connectivity Not supported Not supported Not supported Not supported Only 2.4GHz Not supported Supported Not supported Only SPN Not supported Not supported Support 802.11 b/g/n Supported Supported over IP Removable

\*La información técnica descrita en este documento es una propuesta la cual puede ser actualizada en un futuro próximo.  
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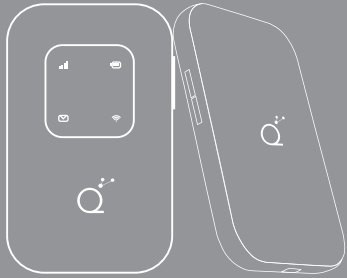


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<b>Dimensions</b>	DEVICE SIZE (Length x Width x Height) Weight (Gr) KEYBOARD TYPE	93,6*59,5*14,8mm About 80g Not supported
<b>Messaging services</b>	MENSAJES MULTIMEDIA (MMS) E-MAIL SMS 7 & 8 BITS support MULTIMEDIA MESSAGES (MMS) SMS via LTE SMS Concatenated (not mms) SMS via 2G, 3G	Not supported Not supported SMS supported over IP Not supported Not supported Supported over IP Not supported
<b>Audio Codecs</b>	2G - GSM AUDIO CODECS (AMR,AMRFR,ETC) 3G - UMTS AUDIO CODECS (AMR,AMRFR,ETC) 4G - LTE AUDIO CODEC (AMR-NB / AMR-WB)	Not supported Not supported Supported AMR,FR,not support ETC
<b>SIM</b>	SDN support (From SIM Card) SIMLOCK BY MCC/ MNC support SIMLOCK BY EF GID 1 / EF GID 2 SIM Voltage supported OTA SMS OTA HTTP Preferred networks CLIENTE ANDSF (Access Network Discovery and Selection Function)	Not supported Supported Supported 1.8/3V Supported Supported Supported Supported
<b>Functionalities</b>	VIDEO PLAYER VIDEO RECORDER VOICE RECORDER AGPS GPS PTT LOUDSPEAKER IMAGE, AUDIO & VIDEO (files supported) LED Indicators	Not supported Not supported Not supported Not supported Not supported Not supported Not supported Not supported Not supported
<b>Connectivity</b>	LPP protocol support LBS 2G, 3G ,4G (Location based services - Support) PROTOCOL SUPPORT EAP-SIM / EAP-AKA HDMI MODEM (USB Cable) Tethering via Bluetooth WIFI OFFLOADING (ENABLED /SUPPORTED) USB (Support modes , photo, sharing, HDD) WAP XHTML HTTPS HTML WEB WEB BROWSER VoIP (Supported/enabled)? NFC Support USSD Tool for traces (Name) SW UPDATE (Remote, via PC, etc)	4 LEDs, network, battery, SMS, WiFi Not supported Not supported Not supported Supported Not supported Not supported Not supported Supported Supported Supported Supported Supported Not supported Not supported supported supported Supported via ZCAT Supported via FOTA

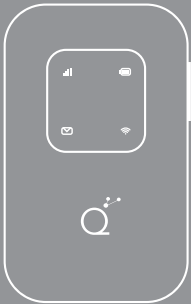


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#### 3GPP Features

CPC	Supported
RECEIVER TYPE 3i	Supported
ENHANCED F-DPCH & SRBoHS	Not supported
Cell_PCH and URA_PCH	Not supported
EVS	Not supported
PC/CS Multirab establishment	Not supported
TTI Bundling	Supported
RLC segmentation	Supported
Different MCS usage	Supported
SPS - Semi-persistent scheduling	Not supported
RoHC - Robust overHead Compression	Supported
Handover intra eNodeB/inter eNodeB / inter-Frequency / inter-RAT	Supported
Redirection to UTRAN	Supported
SRVCC (Telcel / ATT Network)	Not supported
CSFB w/measurements	Not supported
Short DRX	Supported
C-DRX (Connected Mode DRX)	Supported
MFBI	Supported
TM9	Supported
LAA	Not supported
CIRCUIT SWITCH CALL FALLBACK SUPPORT(CSFB)	Not supported
IRAT ( UTRAN, GERAN con PS HANDOVER)	Not support GERAN
FAST DORMANCY (rel 8 3gpp support)	Not supported
SRBoHS	Not supported
E-FACH (HS_FACH, HS_RACH, e_DRX)	Not supported
VAMOS I&II	Not supported
SUPPORT BIP (BEARER INDEPENDENT PROTOCOL)	Supported
BIP Client Supported: UDP/ TCP	Supported
SOPORTE DE MODO TRANSPARENTE (Alpha ID = NULL o NO Alpha ID)	Not supported
OPEN CHANNEL	Supported
CLOSE CHANNEL	Supported
RECEIVE DATA	Supported
SEND DATA	Supported
REFRESH	Supported
GET CHANNEL STATUS	Supported
Handset requirement: A BIP-capable SIM Toolkit handset, "class e"	Not supported
BIP Channels supported	Supported

#### CPE, Mifi, Routers

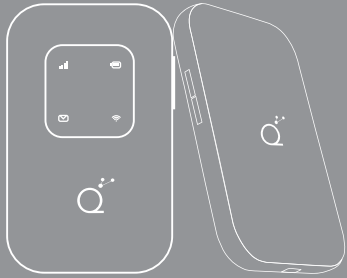
##### Mandatory

Protocol TR069 suport and data models:	
• TR-069 Amendment 1,2,3,4,5 – CPE WAN Management Protocol	
• TR-098 – Internet Gateway Device Data Model for TR-069	
• TR-104 – LTE/WiMAX Home™ Provisioning Parameters for VoIP CPE/UE	
• TR-106 – Data Model Template for TR-069 Enabled Devices - provides the template for extending TR-069 remote management to other digital home devices	Not supported
TR-111/TR-069 Annex G and K – Applying TR-069 to Remote Management of Home Networking Devices - makes it easier for an auto-configuration server (ACS) to interact with home-based devices that live behind a NAT router	
• TR-110 Issue 1.01 - DSLHome™ Reference Models for VoIP Configurations in the DSL Home	
• TR-135 – Data Model for a TR-069 Enabled STB	
• TR-140 Issue 1.1 - TR-069 Data Model for Storage Service Enabled	



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Devices	Not supported
<ul style="list-style-type: none"> <li>• TR-142 – Framework for TR-069 enabled PON devices</li> <li>• TR-143 – Specifies diagnostics objects for use in data models</li> <li>• TR-156 – Using GPON Access in the context of TR-101</li> <li>• TR-157 – Specifies Component objects for use in data models</li> <li>• TR-18111 - Specifies Device:1</li> <li>• TR-18112 - Specifies Device:2</li> <li>• TR-196 - Femto Access Point Service Data Model</li> </ul>	
Enabled and editable menu to enter URL ACS Server, user and password and Period Inform Interval. But Support limited access to restrict/disable this sensitive settings from the LAN Side	Not supported
Protocol STUN or XMPP support	Not supported
Support real-time update of this hosts list including connected devices and relevant parameters (MAC, IP, description, speed)	Supported
<p>LTE Statistics:</p> <ul style="list-style-type: none"> <li>- WAN/LAN Statistics (Packet Drops/Lost/Sent/Received)</li> <li>- WAN/LAN bandwidth utilization/allocation</li> <li>- Uplink/Downlink data rates</li> <li>- IMSI</li> <li>- IMEI</li> <li>- MSISDN</li> <li>- Cell ID</li> <li>- RSRP</li> <li>- RSRQ</li> <li>- SINR</li> <li>- CQI</li> <li>- RSCP</li> <li>- RSSI</li> <li>- CPE Tx power</li> <li>- CPU usage</li> <li>- Memory usageRSRQ</li> <li>- Connection time (retention) to network</li> </ul> <p>and additional WIFI Statistics (neighbor's channels, noise level, etc)</p>	Not supported
Support active and passive notifications	Not supported
Support device diagnostics: speed test (ping, DSL, ATM Loopback, DNS diagnostics, Trace, etc)	Not supported
Support Https with and without certificate	Not supported
Support of Connection request issued by the ACS with user and Password (basic, digest)	Not supported
Support of RPC	Not supported
Support file download RPC initiated by ACS server	Not supported
Support restart RPC, when activated by ACS	Not supported
Support functionality of Set and Get commands, issued by the ACS. CPE should respond according to TR-069 (and its subsets) protocol rules(e.g. Get parameters, get attributes etc.). ALL parameters must to be checked one by one. session to the ACS and including new value in the Parameter List within associated Inform message.	Not supported

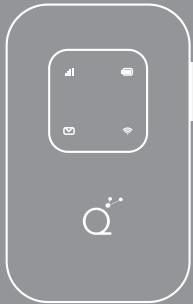


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#### Optional

<b>Avoid using X_Vendor, if possible</b> To make life much easier, it is highly recommended to avoid or reduce to a minimum the use of devices which their data model is based on X_Vendor parameters rather than standard data model. In cases the data model includes parameters which are not part in the TR-069 standard data model, naturally there is no alternative.	Not supported
<b>TR-069 Client robustness</b> Important to verify that the TR-069 client on the device is not stopping to work after a sever load, and become non-manageable. If the TR-069 Client sopped working, only a manual reboot will fix the problem. This problem can be resolved by implementing a "Watchdog" in the CPE that monitors and verified that the TR-069 Client is alive.	Not supported
<b>Security</b> Verify that the CPE supports HTTPS with and without Certificate. The CPE should support advanced security authentication where the CPE will use the Serial as unique username and use unique password only for this Serial.	Not supported
<b>Protocol LPP/LPPa support</b>	Not supported
<b>NAT configuration (Type A, B, C, D, E, F or 1, 2, 3)</b>	Not supported
<b>Function as Ethernet Access point</b>	Not Supported
<b>Port Forwarding</b>	Supported
<b>VoLTE supported /Enabled</b>	Not supported
<b>NAT ALG (supported/enabled)</b>	Not Supported