



H24 HSPA Series

Delivering seamless mobility to the M2M world



- 5.76 Mbps HSUPA
- 7.2 Mbps HSDPA
- Tri Band UMTS/HSPA
- Quad Band GSM
- EDGE Class 12
- GPRS Class 12
- GPS
- Ext. RF
- Internal TCP/IP, UDP
- SSL - Secure Connection
- OverThe Air
- Ext. Temperature
- RoHS
- Fully Type Approved
- 24 Family Form Factor

Welcome to the next generation.

It's time for M2M to enter the next generation with the H24, a 3.5G wireless module designed to bring your M2M applications to the next level. The H24 features blazing fast HSUPA/HSDPA connectivity to take advantage of global 3.5G deployment while still leveraging backwards compatibility with GSM/GPRS and EDGE networks.

Mobile broadband.

Realize the full potential of M2M with true broadband connectivity, especially where traditional infrastructure does not exist. With HSPA, bandwidth is no longer an obstacle. Empower your mobile office with an HSPA-enabled gateway, providing optimal access to wireless networks, phone, fax, and broadband internet access.

Flexible integration.

The H24 is built on the same form factor as the rest of the Motorola "24" family of wireless modules, giving you flexibility with a single design solution. With Motorola, integrating cross platform technology has never been easier. On top of that, built in internet and security protocols allow easy integration and faster time to market.

Designed to last.

The H24 features firmware upgrade over the air (FOTA) technology to ensure your M2M solution's lifespan and reliability are maximized. Future upgrades can be implemented instantly, eliminating manual field software updates and time consuming maintenance activities.

Automotive mobility.

The HSPA-powered H24 module opens the door for the next generation of automotive applications. Leverage mobile broadband in the auto for advanced infotainment systems like internet-assisted navigation, putting the full power of the internet in the auto. Enhanced robustness and on-board GPS capabilities make the H24 the ideal choice for fleet management, asset tracking and other location-based wireless applications as well.



Robust connectivity.

The H24 provides the wireless foundation for both home and commercial security systems, allowing on-demand live video broadcast over the internet. Never again let bandwidth limit your M2M application's potential. The H24 also features receiver diversity for optimal performance under harsh network conditions, ensuring your security solution is as robust as possible.

Dedicated to M2M.

Motorola's renowned commitment to quality and dedicated support continue to set the standard for M2M. Our products and manufacturing processes are held to the harshest industry standards, providing rugged, robust modules that are built to last. Whether we're working with you to deliver an innovative solution or assisting you with your needs from the design phase to accreditation, Motorola is here for you.

H24 Series Specifications

H24 Global

- Tri Band UMTS/HSPA
850/1900/2100MHz
- Quad Band GSM
850/900/1800/1900MHz

H24 NA

- Tri Band UMTS/HSPA
850/1700/1900MHz
- Quad Band GSM
850/900/1800/1900MHz

H24 Dual

- Dual Band UMTS/HSPA
900/2100MHz
- Quad Band GSM
850/900/1800/1900MHz

H24 Single

- Single Band UMTS/HSPA
2100MHz
- Quad Band GSM
850/900/1800/1900MHz

Product Features

Data

- UMTS/HSDPA/HSUPA 3GPP release 6
- HSUPA 5.76Mbps
- HSDPA 7.2Mbps
- GSM 3GPP release 99
- EDGE (E-GPRS) multi-slot class 12
- GPRS multi-slot class 12

GPS

- Multimode GPS (Standalone and Assisted) 1575 MHz

Physical

- Size: 24.4 x 45.2 x 5.4 mm
(6.1mm stacking height)
- Mounting: two 2.4 mm holes
- Weight: <10 grams

Environmental

- Operating temperature:
-30°C to +85°C
- Storage temperature:
-40°C to +85°C

Firmware Upgrade

- Firmware upgrade Over-the-Air (FOTA)

Performance

Operating Voltage

- Voltage: 3.3V - 4.2V

Current Consumption

- < 2.5mA @DRX9 (Sleep mode)

TX Power

- UMTS/HSPA – Class 3 (0.25 Watt)
- GSM 850/900 MHz – Class 4 (2Watt)
- GSM 1800/1900 MHz – Class 1 (1Watt)
- EDGE 850/900 MHz – Class E2 (0.5Watt)
- EDGE 1800/1900 MHz – Class E2 (0.4Watt)

Interfaces

Connectors

- Single 70 pin board to board
- RF
 - Main antenna – MMCX / Pad
 - Diversity antenna – U.FL
 - GPS antenna – U.FL

Connectivity

- USB 2.0 high speed
- Multi channels over USB
- Fast UART: BR from 300 bps to 4 Mbps

Operating Systems Supported

- Windows® XP & Vista
- Windows @ CE & Mobile 6.0
- Linux

Data Features

- Embedded TCP/IP and UDP/IP protocol stack
- SSL - Secure Connection

HSPA

- Max uplink 5.76Mbps
- Max downlink 7.2Mbps
- UE CAT [1-8], 11, 12 supported
- Compressed mode (3GPP TS25.212)

EDGE

- Multi-slot class 12
(4 Down; 4 Up; 5 Total)
- Coding Scheme MCS1-MCS9

GPRS

- Multi-slot class 12
(4 Down; 4 Up; 5 Total)
- Coding Scheme CS1-CS4

CSD

- UMTS Max BR 64 Kbps
- GSM Max BR 14.4 Kbps

SMS

- MO / MT Text and PDU modes
- Cell broadcast

FAX

- Group 3, Class 1

Voice Features

- Telephony
- Digital audio
- 2 Differential microphones
- 3 Speakers
- Vocoders EFR/HR/FR/AMR
- DTMF support
- TTY support

Audio control

- Broad gain control
- Echo cancellation
- Noise suppression
- Side tone

Character Set

- IRA
- GSM
- UCS2

Control / Status Indications

- 8 GPIO's
- 3x A/D general purpose converters
- UMTS/GSM Network coverage
- Wake up in/out
- Antenna detect
- Temperature sensor
- Voltage sensor
- Dedicated coin cell pin
- Dedicated power cycle pin

AT Command Set

- Motorola proprietary AT commands
- GSM 07.05
- GSM 07.07

Accessories

- Firmware data loader over serial connection
- Data logger
- Developer Kit

Regulatory and Approvals

- FCC, IC
- PTCRB
- R&TTE
- GCF
- RoHS/WEEE
- CE

For more information contact us at: M2M.Sales@motorola.com



www.motorola.com/m2m



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