



The MU509 is a dual-band UMTS/HSDPA wireless module supporting downlink data rates up to 3.6 Mbps and uplink data rates up to 384 kbps. There are three versions of it which meet different market requirements:

MU509-b (supports for UMTS/HSDPA 900/2100 MHz),

MU509-c (supports for UMTS/HSDPA 850/1900 MHz),

MU509-g (supports for UMTS/HSDPA 850/2100 MHz).

The MU509 is one of MX509 module family, pin-to-pin compatible with MC509 and MT509. It also supports global certification. With its ultra-compact design and extended operating temperature range, MU509 is the perfect platform for M2M applications.

HUAWEI MU509 HSDPA M2M Module

LGA Package

Quad-band EDGE/GPRS/GSM

PCM Voice

Compact Design

DL (3.6 Mbps)/UL (384 kbps)

Embedded TCP/IP Stack

Dual-band HSDPA

Analog Audio

CE, FCC, GCF, PTCRB, CCC

Product Features

- Dual-band UMTS/HSDPA (WCDMA/FDD)

MU509-b: 900/2100 MHz

MU509-c: 850/1900 MHz

MU509-g: 850/2100 MHz

- Quad-band GSM GPRS

1900/1800/900/850 MHz

- EDGE multi-slot class 12

- Output Power

WCDMA/ HSDPA 900/2100 MHz:

+24 dBm (Power Class 3)

EGSM850 Class 4 (2 W)

EGSM900 Class 4 (2 W)

GSM1800 Class 1 (1 W)

GSM1900 Class 1 (1 W)

- Sensitivity

GSM850/900/1800 MHz: -109 dBm

GSM1900 MHz: -107 dBm

WCDMA850/900 MHz: -110 dBm

WCDMA1900 MHz: -108 dBm

WCDMA2100 MHz: -109 dBm

- Control via AT commands

3GPP TS 27.007 and 27.005

Huawei extended AT command

- Embedded TCP/IP stack, including UDP protocol

Power supply

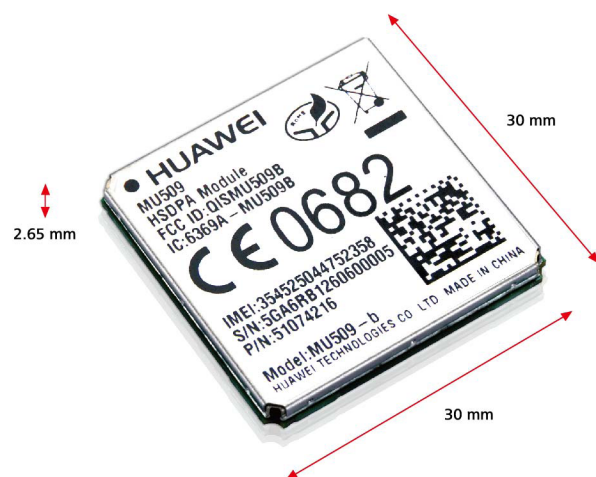
3.3 V to 4.2 V (typical: 3.8 V)

- Temperature range

Normal Operation: -20°C to 70°C

HUAWEI MU509

HSDPA M2M Module



Extended Operation: -30°C to 75°C

Storage: -40°C to 85°C

- Humidity: 5% - 95%
- Dimensions: 30 mm x 30 mm x 2.65 mm
- Weight: approx. 7g

Voice Features

- Support analog voice function and MIC/SPK interface
- Support PCM voice function and interface
- Echo Cancellation
- Noise reduction
- DTMF support

Supplementary Service

- Caller ID display
- Call forwarding/hold/waiting
- USSD

SMS Features

- MO and MT

Data Features

- GSM CS: UL (9.6 kbps)/DL (9.6 kbps)
- GPRS/EDGE: Multi-slot Class 12, Class B
- WCDMA CS: UL (64 kbps)/DL 64 kbps
- WCDMA PS: UL (384 kbps)/DL (384 kbps)
- HSDPA: DL (3.6 Mbps)

Interfaces

- Antenna interface
- 145-pin LGA connector:
 - Power supply
 - Analog Audio
 - UART
 - SIM 1.8 V/3.0 V
 - Reset
 - Multiple GPIOs

Approvals & Certifications

- | | |
|-----------------|-------------------|
| • CE | • PTCRB (MU509-c) |
| • GCF (MU509-b) | • RoHS Compliant |
| • FCC | • CCC |

Note:

Please refer to the latest version of Hardware Guide about the specifications. Huawei reserves the right to make changes or improvements to any of the products without prior notice.