



UMTS | HSPA+ 5.76/21.0

## GFF910 FAMILY

- Global Form Factor interface**
- Telit Unified AT Command Set**
- Multi Band**
- RX Diversity**
- Penta Band HSPA+**
- Quad Band EDGE**
- Quad Band GPRS**
- RoHS Compliant**
- SIM Access Profile**
- USB 2.0 High Speed Compatible**
- Embedded FTP and SMTP Client**
- Serial Port Multiplexer**
- 28 Channel GPS Receiver**
- Extended RF Sensitivity**

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The GFF910 module is designed to allow the user easy plug and play options for GSM, UMTS, HSPA and CDMA. With plug and play options via the Telit Global Form Factor the entire range of xE910 modules are supported and options such as voice and GPS can easily be fulfilled without the need for re-work or re-design.

By providing an 80 pin Global Form Factor connector interface the GFF910 allows the user the option to mount the module which best fits their application.

In most cases your design needs to provide flexibility depending on which region the product is to be deployed and or certified. The GFF910 form factor takes the guess work out of the design by providing a single connector for interfacing the entire range of radio types depending on your needs.

Full electrical and software (AT command) compatibility is maintained between each module type be it GSM (GFF910-GE), CDMA (GFF910-DE or GFF910-CE) or HSPA+ (GFF910-G).

GFF910 Variants								
Variant name	Upload	Download	Frequencies	Features				
	HSUPA (Mbps)	HSDPA (Mbps)	UMTS HSPA+ BANDS(MHz)	GSM GPRS EDGE Quad-band	Rx Diversity	Data	Voice	GPS
<b>Global market</b>								
GFF910-G	5.76	21.0	800/850/900/AWS/1900/2100	•	•	•	•	•
GFF910-DG	5.76	21.0	800/850/900/AWS/1900/2100	•	•	•		•
GFF910-D	5.76	21.0	800/850/900/AWS/1900/2100	•	•	•		
<b>EMEA/APAC/Latin America markets</b>								
GFF910-EUR	5.76	7.2	850/900/2100	•		•	•	
GFF910-EUD	5.76	7.2	850/900/2100	•		•		
GFF910-EUG	5.76	7.2	850/900/2100	•		•		•
<b>North America market</b>								
GFF910-NAR	5.76	7.2	850/900/2100	•		•	•	
GFF910-NAD	5.76	7.2	850/900/2100	•		•		
GFF910-NAG	5.76	7.2	850/900/2100	•		•		•
<b>GSM/GPRS</b>								
GFF910-GE	4 Bands GSM/GPRS: 850/900/1800/1900MHz			•		•	•	

# GFF910 Family

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actual size

## Product features

- Supported bands
  - 4 Bands GSM / GPRS / EDGE: 850 / 900 / 1800 / 1900 MHz
  - 5 Bands UMTS / HSPA: 800/850, 900, AWS1700, 1900, 2100 MHz
- HSPA+ data up to 21.0 Mbps downlink / 5.76 Mbps uplink
- Quad Band GPRS and EDGE class 33
- Dimension: 36.2mm (L) x 30mm (W) x 5.5mm (D)
- 80 pin Global Form Factor connector interface
- Optional GPS
- Rx Diversity
- Extended temperature range
- SIM Access Profile
- 3GPP release 7 compliant
- Control via AT commands according to 3GPP TS27.005, 27.007 and customized Telit AT commands
- Serial port multiplexer 3GPP TS27.010
- SIM application Tool Kits 3GPP TS 51.014
- Built in UDP/TCP/FTP/SMTP stack

## Data

- HSPA category 6 in uplink and up to category 14 in downlink
    - Uplink up to 5.76 Mbps
    - Downlink up to 21.0 Mbps (penta-band variants)
    - Downlink up to 7.2 Mbps (tri-band variants)
  - UMTS
    - Uplink/Downlink up to 384 kbps
  - EDGE
    - Uplink up to 236.8 kbps
    - Downlink up to 296 kbps
  - GPRS
  - CSD
- ## Electrical
- Output power
    - Class 4 (2W, 33 dBm) @ GSM 850/900
    - Class 1 (1W, 30 dBm) @ GSM 1800 / 1900
    - Class 3 (0.25 W, 24 dBm) @ UMTS
    - Class E2 (0.5 W, 27 dBm) @ EDGE 850 / 900
    - Class E2 (0.4 W, 26 dBm) @ EDGE 1800 / 1900
  - Sensitivity
    - -111 dBm @ UMTS
    - -109 dBm @ GSM 850 / 900 MHz
    - -110 dBm @ DCS1800 / PCS1900 MHz
  - Supply voltage
    - Nominal: 3.8 VDC
    - Range: 3.4 - 4.2 VDC

## Additional features

- Digital voice and SMS
- IP stack with TCP and UDP protocol
- Standard and extended AT command set

## Approvals

- RoHS Compliant
- CE, GCF (Europe)
- FCC, PTCRB, IC (North America)

## Optional GPS receiver

- SUPL 1.0
- High sensitivity for indoor reception, better than -165 dBm with A-GPS
- GPS Cold Start Autonomous (acquisition sensitivity) -147 dBm
- GPS Hot Start Autonomous -161 dBm
- GPS tracking mode -166 dBm
- Accuracy 3 m
- TTFF from Cold Start 42 s
- TTF from Warm Start 30 s
- TTF from Hot Start 1.8 s
- Supports multi-channel GPS
- L1 1575.42 MHz
- GPS NMEA 0183 output format
- Datum WGS-84
- Dedicated GPS AT commands

## Python\* application resources

- Python\* version= 2.7.2
- Python\* script interpreter (module takes the application code directly in the Python\* language)
- Memory: 2MB of NV memory for the user scripts and 2 MB RAM for the Python engine usage



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