

1.4 Product description

LARA-R2 series modules provide LTE Cat 1, GSM/(E)GPRS multi-mode technology:

- LARA-R204 is designed mainly for operation in America (on Verizon network)
- LARA-R211 is designed mainly for operation in Europe, Asia and other countries

4G LTE	2G GSM/GPRS/EDGE
3GPP Release 9 Long Term Evolution (LTE) Evolved Universal Terrestrial Radio Access (E-UTRA) Frequency Division Duplex (FDD) DL Rx diversity	3GPP Release 9 Enhanced Data rate GSM Evolution (EDGE) GSM EGPRS Radio Access (GERA) Time Division Multiple Access (TDMA) DL Advanced Rx Performance
Band support ¹ : <ul style="list-style-type: none"> • LARA-R204: <ul style="list-style-type: none"> • Band 13 (750 MHz) • Band 4 (1700 MHz) • LARA-R211: <ul style="list-style-type: none"> • Band 20 (800 MHz) • Band 3 (1800 MHz) • Band 7 (2600 MHz) 	Band support: <ul style="list-style-type: none"> • LARA-R211: <ul style="list-style-type: none"> • E-GSM 900 MHz • DCS 1800 MHz
LTE Power Class <ul style="list-style-type: none"> • Power Class 3 (23 dBm) 	GSM/GPRS (GMSK) Power Class <ul style="list-style-type: none"> • Power Class 4 (33 dBm) for E-GSM band • Power Class 1 (30 dBm) for DCS band EDGE (8-PSK) Power Class <ul style="list-style-type: none"> • Power Class E2 (27 dBm) for E-GSM band • Power Class E2 (26 dBm) for DCS band
Data rate <ul style="list-style-type: none"> • LTE category 1: up to 10.3 Mb/s DL, 5.2 Mb/s UL 	Data rate ² <ul style="list-style-type: none"> • GPRS multi-slot class 12³, CS1-CS4, up to 85.6 kb/s DL/UL • EDGE multi-slot class 12³, MCS1-MCS9, up to 236.8 kb/s DL/UL

Table 2: LARA-R2 series LTE and 2G characteristics

LARA-R2 modules provide Voice over LTE (VoLTE) as well as Circuit-Switched-Fall-Back (CSFB) audio capability⁴.

¹ LARA-R2 series modules support all the E-UTRA channel bandwidths for each operating band according to 3GPP TS 36.521-1 [11].

² GPRS/EDGE multi-slot class determines the number of timeslots available for upload and download and thus the speed at which data can be transmitted and received, with higher classes typically allowing faster data transfer rates.

³ GPRS/EDGE multi-slot class 12 implies a maximum of 4 slots in DL (reception) and 4 slots in UL (transmission) with 5 slots in total.

⁴ Not supported by LARA-R204 module "02" product version.