

Statement

We, [Quectel Wireless Solutions Co., Ltd] declares the following models.

Module Series: Automotive 5G Module

Model Name: AG598E-ROWA

Hardware Version: R1.0,R1.1,R1.2

Model AG598E-ROWA all use Qualcomm SA522M chipset, share the same chipset baseline.

They support the same LGA form factor package.

The difference between these three OCs are the GNSS function, LTE UE categories and MIMO, with R1.0 GNSS supporting L1+L5<E CAT19&4*4MIMO; R1.0 R1.1 GNSS supports L1+L5<E CAT16&2*2MIMO; R1.2 does not support GNSS and supports LTE CAT16&2*2MIMO.

HW R1.0 with U2601 PA used for MIMO3 LB + UHB (N77/N78/B42) NSA mode. And HW R1.1/R1.2 only have a single PA (N77/N78/N79/B42) for UHB LTE/NR and NSA mode.

Hardware version	LTE Category	UE	With or without GNSS	DL MIMO	Supported Band
R1.0	CAT19		L1+L5	4*4MIMO	5G:n1/2/3/5/7/8/12/18/20/25/26/28/38/40/41/66/71/77/78/79 LTE-FDD:B1/2/3/4/5/7/8/12/18/19/20/25/26/28/32Rx/66/71 LTE-TDD:B34/38/39/40/41/42 WCDMA:B1/2/4/5/8/19 GSM:900/850/1900/1800 MHz
R1.1	CAT16		L1+L5	2*2MIMO	5G:n1/2/3/5/7/8/12/18/20/25/26/28/38/40/41/66/71/77/78/79 LTE-FDD:B1/2/3/4/5/7/8/12/18/19/20/25/26/28/32Rx/66/71 LTE-TDD:B34/38/39/40/41/42 WCDMA:B1/2/4/5/8/19 GSM:900/850/1900/1800 MHz
R1.2	CAT16		None	2*2MIMO	5G:n1/2/3/5/7/8/12/18/20/25/26/28/38/40/41/66/71/77/78/79 LTE-FDD:B1/2/3/4/5/7/8/12/18/19/20/25/26/28/32Rx/66/71 LTE-TDD:B34/38/39/40/41/42 WCDMA:B1/2/4/5/8/19 GSM:900/850/1900/1800 MHz

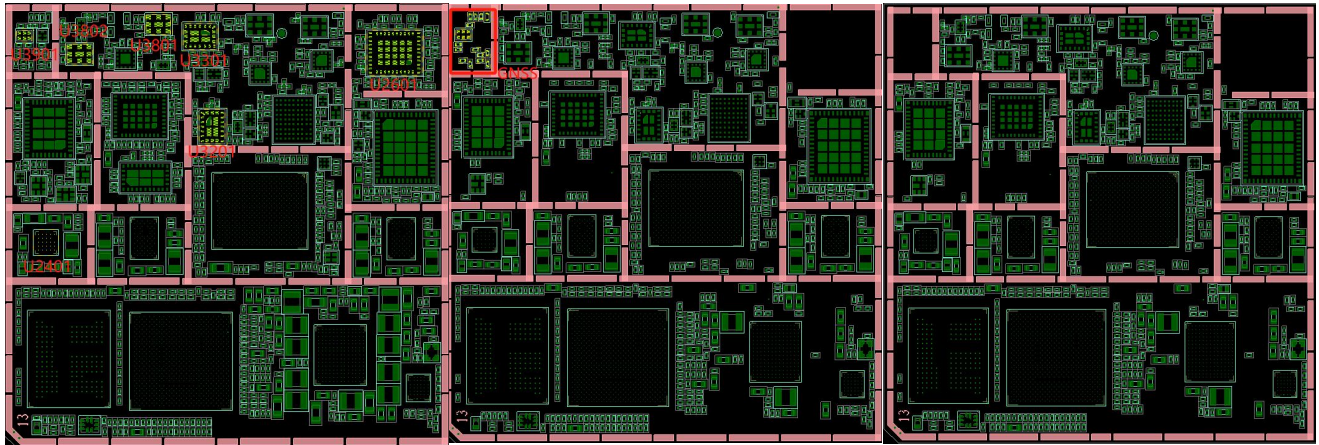
Note:

R1.0: AG598E-ROWA(AD)

R1.1: AG598E-ROWA(AB)

R1.2: AG598E-ROWA(B)

● PCB Layout changes



AG598E-ROWA(AD)

AG598E-ROWA(AB)

AG598E-ROWA(B)

● HW Difference Table

Designator	AG598E-ROWA(AD) (Part Description)	AG598E-ROWA(AB) (Part Description)	AG598E-ROWA(B) (Part Description)
U3901	IC RF DIPX LB:1166-1251MHz HB:1550-1607MHz 1.5x1.1m m H0.45mm RO	IC RF DIPX LB:1166-1251 MHz HB:1550-1607MHz 1. 5x1.1mm H0.45mm RO	/
U2401	/	IC APT QET3930AQ 24B- WLNSP 0.4pitch 2.24X2.16 mm H0.57mm RO	IC APT QET3930A Q 24B-WLNSP 0. 4pitch 2.24X2.16m m H0.57mm RO
U2601	IC RF LPAF 5GNR:n48/n77/n 78 LTE:B42/B43/B48 PINS62 4.5X5.5mm H0.725mm RO	/	/
U3201	IC RF RX DFEM LTE B1/3/4/ 7/40/41/66 support DL CA 0.475pitch PINS24 3.4x2.6m m H0.7mm RO	/	/
U3301	IC RF RX DFEM LTE B1/3/4/ 7/40/41/66 support DL CA 0.475pitch PINS24 3.4x2.6m m H0.7mm RO	/	/
U3801	IC RF TRPX LB:500-960MHz MB:1427-2690MHz HB:3400- 5925MHz 2.5x2.0mm H0.65 mm RO	/	/
U3802	IC RF TRPX LB:500-960MHz MB:1427-2690MHz HB:3400-	/	/

	5925MHz 2.5x2.0mm H0.65 mm RO		
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● **ANT Mapping Difference Table**

ANT Mapping	AG598E-ROWA(AD)	AG598E-ROWA(AB)	AG598E-ROWA(B)
ANT0	GSM DCS/PCS TX/PRX WCDMA/LTE/NR(SA) MHB TX/PRX WCDMA/LTE/NR(SA) LB DRX LTE UHB DRX NR n41 TX/PRX NR n77/n78/n79 DRX NR n41(NSA) TX @ LB(LTE)+n41 ENDC Combos NR MHB(NSA) TX @LB(LTE)+MHB (NR) ENDC Combos	GSM DCS/PCS TX/PRX WCDMA/LTE/NR(SA) MHB TX/PRX WCDMA/LTE/NR(SA) LB DRX LTE UHB TX/PRX NR n41/77/n78/n79(SA) TX/PRX LTE UHB ENDC TX @LB(NR)+B42 ENDC Combos NR MHB(NSA) TX @LB(LTE)+MHB (NR) ENDC Combos NR n41(NSA) TX @ LB(LTE)+n41 ENDC Combos NR n77/n78/n79(NSA) TX @LB(LT E)+n77/78/79 ENDC Combos	GSM DCS/PCS TX/PRX WCDMA/LTE/NR(SA) MHB TX/PRX WCDMA/LTE/NR(SA) LB DRX LTE UHB TX/PRX NR n41/77/n78/n79(SA) TX/PRX LTE UHB ENDC TX @LB(NR)+B42 ENDC Combos NR MHB(NSA) TX @LB(LTE)+MHB (NR) ENDC Combos NR n41(NSA) TX @ LB(LTE)+n41 ENDC Combos NR n77/n78/n79(NSA) TX @LB(LT E)+n77/78/79 ENDC Combos
ANT1	GSM850/GSM900 TX/PRX WCDMA/LTE/NR(SA) LB TX/PRX WCDMA/LTE/NR(SA) MHB DRX LTE UHB TX/PRX NR n41 DRX NR n77/n78/n79(SA) TX/PRX LTE UHB ULCA TX @MHB(LTE)+B 42 ULCA LTE UHB ENDC TX @MHB(NR)+B 42 ENDC Combos NR LB(NSA) TX @MHB(LTE)+LB(N R) ENDC Combos NR n77/n78/n79(NSA) TX @MHB(L TE)+n77/n78/n79 ENDC Combos	GSM850/GSM900 TX/PRX WCDMA/LTE/NR(SA) LB TX/PRX WCDMA/LTE/NR(SA) MHB DRX LTE UHB DRX NR n41/n77/n78/n79(SA) DRX LTE UHB ENDC TX @MHB(NR)+B 42 ENDC Combos NR LB(NSA) TX @MHB(LTE)+LB(N R) ENDC Combos NR n77/n78/n79(NSA) TX @MHB(L TE)+n77/n78/n79 ENDC Combos	GSM850/GSM900 TX/PRX WCDMA/LTE/NR(SA) LB TX/PRX WCDMA/LTE/NR(SA) MHB DRX LTE UHB DRX NR n41/n77/n78/n79(SA) DRX LTE UHB ENDC TX @MHB(NR)+B 42 ENDC Combos NR LB(NSA) TX @MHB(LTE)+LB(N R) ENDC Combos NR n77/n78/n79(NSA) TX @MHB(LTE)+n77/n78/n79 ENDC Combos
ANT2	LTE/NR(SA) MHB PRX-MIMO LTE UHB PRX-MIMO NR n41 PRX-MIMO LTE UHB ULCA @LB(LTE)+UHB(LT E) ULCA LTE UHB ENDC TX @LB(NR)+B42 ENDC Combos NR n77/n78/n79(SA) PRX-MIMO NR n77/n78(NSA) TX @ LB(LTE)+n 77/n78 ENDC Combos	/	/
ANT3	LTE/NR(SA) MHB DRX-MIMO		

	LTE UHB DRX-MIMO NR n41 DRX-MIMO NR n77/n78/n79 DRX-MIMO	/	/
ANT5	GNSS L1/L5	GNSS L1/L5	/

● **Voltage Range changes**

Hardware version	Power Supply
R1.0	3.3V~4.3V(Type3.8V)
R1.1	3.3V~4.3V(Type3.8V)
R1.2	3.3V~4.3V(Type3.8V)

The operating voltage range is the same.

● **Mechanical dimension changes(mm)**

The Mechanical dimension is the same.
(45.0 ±0.2) mm × (45 ±0.2) mm × (3.45 ±0.2) mm.

● **Form factor changes:**

The form factor package is the same.
R1.0,R1.1,R1.2: LGA

Person responsible for making this statement.

Name/Surname: 
Position/Title:
Issue Date: 2025-06-30