

LPWA (Low-Power Wide Area) Modules

Cat-M1/NB-IoT Module

Type 1SC

PN: LBAD0XX1SC

Chipset: Altair ALT1250

PTCRB, GCF and AT&T certification completed

MP: 2019Q4



11.4 x 11.1 x 1.4 (max.)mm

NB-IoT Module

Type 1SS

PN: LBAD0YW1SS

Chipset: Mediatek MT2625

MP: 2019Q4



13.2 x 10.6 x 1.8(max.)mm

Cat-M1/NB-IoT Module with Embedded eSIM

Type 1SE

PN: LBAD0ZZ1SE

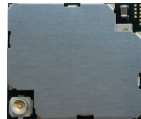
Chipset: Altair ALT1250 + STMicro STM32L462 Series

Application Processor: STM32L 462RE/Cortex M4 w/512KB Flash and 160 KB SRAM, 1MB on-board Serial Flash

Package: LGA

SIM card: internal eSIM (WLCSP)

MP: 2020Q1



15.4 x 18.0 x 2.5(max.)mm

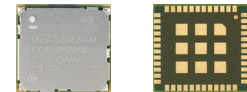
LoRa™ Module

Type ABZ

PN: CMWX1ZZABZ

Semtech SX1276 + STMicro STM32L0

In MP



12.5 x 11.6 x 1.8(max.)mm

LPWA (Low-Power Wide Area) Modules

	Cat-M1/NB-IoT Type1SC Mercury	Cat-M1/NB-IoT Type1SE Gemini	NB-IoT Type 1SS Apollo	LoRa™ Type ABZ
IC	 A Sony Group Company Altair ALT1250	 A Sony Group Company ALT1250 + STM32L462 Series	 Mediatek MT2625	 SX1276 + STMicro STM32L0
Module Size	11.1 x 11.4 x 1.4(max.)mm	15.4 x 18.0 x 2.5(max.)mm	13.2 x 10.6 x 1.8(max.)mm	12.5 x 11.6 x 1.8(max.)mm
Software	AT Command	User application MCU STM SDK	AT Command User application MCU (Option)	User application MCU STM SDK
Supported Band by Module	Low-Band: B5/B8/B12/B13/B14/B17/B18/B19/ B20/B26/B28 Mid-Band: B1/B2/B3/B4/B25		1, 2, 3, 5, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28, 66, 70, 71, 85	North America 862 to 930 MHz
Regulatory Certification	FCC/IC/ETSI/TELEC (plan)		FCC/IC/RED/TELEC (Plan)	FCC/IC, CE (R&TTE)
Carrier (Operator) Certification Completed	GCF, PTCRB, AT&T, KDDI and Verizon in process		PTCRB, T-Mobile, AT&T, Softbank, Deutsche Telekom and Vodafone	Not applicable