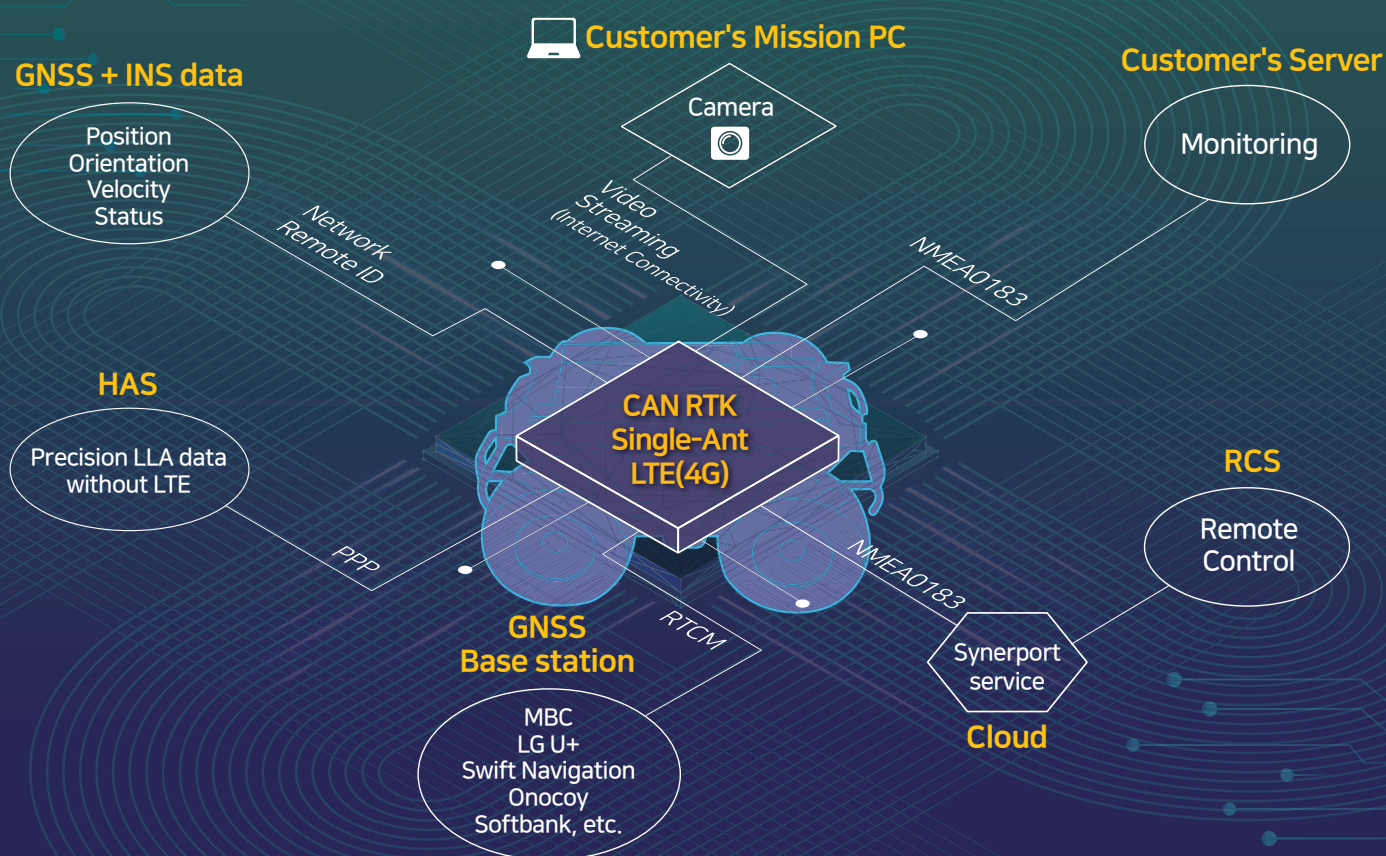


All-in-one GNSS/INS receiver (SYN-3300)

*LTE (4G)、HAS (without LTE)、GNSS/INS、
remote monitoring/controlなど、全ての機能を
統合したGNSS/INS 受信機*



主な活用分野

- AMR
- 精密管制
- 測量、海洋探査
- GPS陰影地域でもINS機能で作動
- LTE陰影地域でもPPP-Based HAS対応
- Global GNSS RTK サービス企業との連携をサポート (Onocoy, Swift Navigation, Softbank, etc.)
- AGV
- 遠隔制御
- ビデオ転送(インターネット共有)



▲ SYN-3300
Single Antenna Version

SYN-3300

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Single Antenna Version

Electrical Specifications

Input	Rated Voltage: 9V~60V
Power Consumption	2W

INTERFACE

Connection Port	LTE: SMA GNSS: SMA UART: GHR-6V-S TELEM: GHR-6V-S CAN: GHR-4V-S
Correction Data format	RTCM v3.x(RTK)
Output Protocols	NMEA-0183, DroneCAN
Indicator	PWR, GNSS, COMM, RUN

PHYSICAL

Dimension	66 x 68 x 12.6 mm (W x D x H)
Weight	76 g
Operating	-35° C to +75° C

LTE module_EG25-G Mini PCIe Specifications

Frequency bands (MHz)-G	LTE: B1, B3, B5, B7, B8 3G: B1
LTE data rates (Mbps)	LTE-FDD: Max. 150 (DL)/Max. 50 (UL) LTE-TDD: Max. 130 (DL)/Max. 30(UL)

IMU Sensor_ ICM-42688

Gyroscope Noise	2.8 mdps/√Hz
Accelerometer Noise	70 μg/√Hz
User selectable Gyro Full-scale range (dps)	± 15.6/31.2/62.5/125/250/500/1000 /2000

Barometer/Thermometer Sensor_ BMP390

Operating range (full accuracy)	Pressure: 300 ~ 1250hPa
Temperature coefficient offset (25°C~40°C at 900Pa)	±0.6Pa/K
Maximum sampling rate	200 Hz

GNSS TECHNOLOGY

Channel	1408
Data Format	NMEA 0183
Satellites signal tracking	GPS: L1C/A, L1C, L2P(Y), L2C, L5 BDS: B1I, B2I, B3I, B1C, B2a, B2b GLONASS: G1, G2, G3 Galileo: E1, E5a, E5b, E6 QZSS: L1, L2, L5 NavIC: L5
Cold start (Time To First Fix)	< 12 s
Hot start	< 4 s

POSITIONING ACCURACY

Single Point Positioning	448 channels Vertical: 2.5m
RTK	Horizontal: 0.8 cm + 1 ppm Vertical: 1.5 cm + 1 ppm
Tilt Measurement	10mm + 0.7mm/°tilt (accuracy < 2.5cm within 30°)
Time Pulse Accuracy	20 ns
Nav. Update Rate	up to 20Hz

Power monitoring Sensor_ INA237

Offset voltage	±50 μV
Gain error	±0.3%
Power monitoring accuracy	1.6% full scale, -40°C to +125°C
Operational current	640 μA (typical)

Geomagnetic Sensor_ BMM350

Magnetic field range (all axes)	±2000μT
Maximum sampling rate	400 Hz

Contact



SYNEREX Inc.

#510, Yuseong-daero 1689-beongil 70, Yuseong-gu, Daejeon
Main contact : JD, Park

☎ +82-2-2088-1182 ✉ jdpark@synerex.kr 🌐 www.synerex.kr