



Microcontroller & Sensors

RF	SIM7000E
MCU	ATMEGA32U4
Sensor	Temperature & Humidity

Dimensions and weight

Height	25 mm
Width	60 mm (with casing box)
Depth	45 mm (with casing box)
Weight	150 grams

Power Supply

Power Supply 5V USB

Casing

Material	LUPOY
Colors	GN5001RFG Black

Environmental Requirements

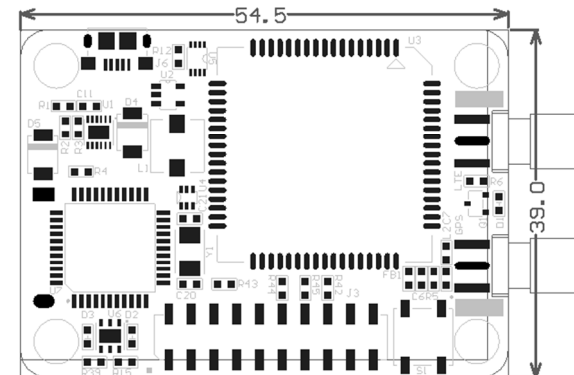
Operating temperature	-20°C / +85°C
Storage temperature	-5°C / +35°C
Humidity	from 0% up to 95%

Power Consumption (RF)

Power off:	7uA
PSM:	9uA
Sleep:	1mA
Idle:	11mA

Interfaces

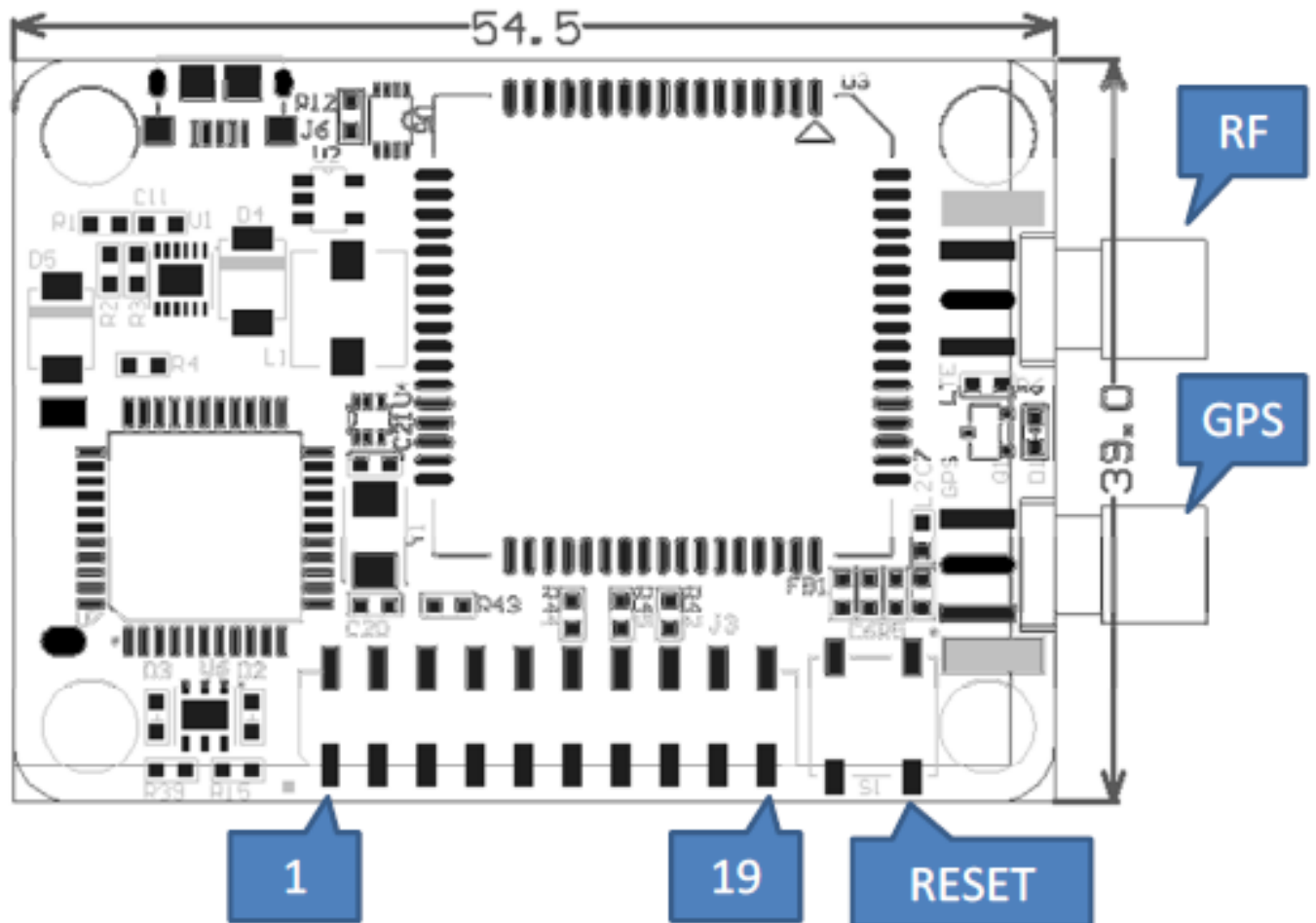
microUSB	X1
UART	up to 2 (3.3V)
microSIM	X1 (3.3V) X1
I2C	X1
SPI	up to 12
GPIO	up to 2 (10bits)
ADC	



Product

Name NB-IOT Start Kit Model
NWNBM7000ES-ST Standard

- Tri-Band FDD-LTE
B3/B8/B20/B28ETSI EN 300 328
Compliance
- GNSS (GPS, GLONASS and
BeiDou/Compass, Galileo, QZSS)
- LTE CAT-M1(eMTC)
- Uplink up to 375kbps, Downlink up to
300kbps
- NB-IoT
- Uplink up to 66kbps, Downlink up to
34kbps
- EDGE Class
- Uplink up to 236.8Kbps, Downlink up
to 236.8Kbps
- GPRS
- Uplink up to 85.6Kbps, Downlink up
to 85.6Kbps



2	4	6	8	10	12	14	16	18	20
VBUS	MOSI	GND	SIMDP2	SIMDM2	D2/SDA	D3/SCL	D8/INT	D7	D6

1	3	5	7	9	11	13	15	17	19
MISO	SCK	RESET	AIO1	AIO0	+3.3V	GND	D9	D10	D11