

## Product Comparison



TRIMBLE EMBEDDED PRODUCT FEATURES AND REQUIREMENTS	CONDOR C1919A 67650-10	CONDOR C1919C 67650-20	CONDOR C1011 68674-00, 68674-05	CONDOR C2626 70896-00	CONDOR C1216 68676-10, 68676-20, 68676-30	CONDOR C1722 68675-00	LASSEN IQ 46240-25	COPERNICUS II 63530-00, 63530-10, 67415-00
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### POWER REQUIREMENTS

V <sub>CC</sub> min	3 V	3 V	3 V	3 V	3 V	3 V	3 V	2.7 V
V <sub>CC</sub> max	3.6 V	3.6 V	3.6 V	3.6 V	3.6 V	3.6 V	3.6 V	3.3 V
V <sub>CC</sub> typ	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	3 V
V <sub>BAT</sub> min	2 V	2 V	2 V	2 V	2 V	2 V	2.5 V	2.7 V
V <sub>BAT</sub> max	V <sub>CC</sub>	V <sub>CC</sub>	V <sub>CC</sub>	V <sub>CC</sub>	V <sub>CC</sub>	V <sub>CC</sub>	V <sub>CC</sub> - 10%	3.3 V
Typical supply current: (Excludes antenna current, except for C1011)	37 mA	37 mA	33 mA	<35 mA	<35 mA	<35 mA	27 mA	44 mA
Typical RTC current	5 µA	5 µA	5 µA	5 µA	6 µA	5 µA	20 µA	7 µA

### START UP TIMES

Reacquisition	2 s	2 s	2 s	2 s	2 s	2 s	<3 s	2 s
Hot start	2 s	2 s	2 s	2 s	2 s	2 s	<12 s	3 s
Warm Start	<35 s	<35 s	<35 s	<35 s	<35 s	<35 s	<38 s	35 s
Cold Start	<38 s	<38 s	<38 s	<38 s	<38 s	<38 s	<55 s	38 s

### ACCURACY

Autonomous position @ 50% CEP	<2.5 m	<2.5 m	<2.5 m	<2.5 m	<2.5 m	<2.5 m	<5 m	<2.5 m
Autonomous position @ 90% CEP	<5.0 m	<5.0 m	<5.0 m	<5.0 m	<5.0 m	<5.0 m	<8 m	<5.0 m
Autonomous altitude @ 50% CEP	<5 m	<5 m	<5 m	<5 m	<5 m	<5 m	<10 m	<5 m
Autonomous altitude @ 90% CEP	<8 m	<8 m	<8 m	<8 m	<8 m	<8 m	<16 m	<8 m
SBAS position @ 50% CEP	<2 m	<2 m	<2 m	<2 m	<2 m	<2 m	NA	<2 m
SBAS position @ 90% CEP	<4 m	<4 m	<4 m	<4 m	<4 m	<4 m	NA	<4 m
SBAS altitude @ 50% CEP	<3 m	<3 m	<3 m	<3 m	<3 m	<3 m	NA	<3 m
SBAS altitude @ 90% CEP	<5 m	<5 m	<5 m	<5 m	<5 m	<5 m	NA	<5 m
Velocity	0.06 m/s	0.06 m/s	0.06 m/s	0.06 m/s	0.06 m/s	0.06 m/s	0.06 m/s	0.06 m/s

### TIMING OUTPUT

PPS	2.8 V TTL	2.8 V TTL	2.8 V TTL	2.8 V TTL	2.8 V TTL	2.8 V TTL	3.3 V TTL	3.0 V TTL
PPS accuracy to UTC (1 sigma)	±25 ns	±25 ns	±25 ns	±25 ns	±25 ns	±25 ns	±50 ns	±60 ns
PPS pulse width	4.2 µs	4.2 µs	4.2 µs	4.2 µs	4.2 µs	4.2 µs	80 µs	4.2 µs

### SENSITIVITY

Standard acquisition	-146 dBm	-146 dBm	-146 dBm	-146 dBm	-146 dBm	-146 dBm	-130 dBm	-142 dB
Enhanced acquisition	NA	NA	NA	NA	NA	NA	-136 dBm	-144 dBm (-148 dBm with current ephemeris)
Tracking	-160 dBm	-160 dBm	-160 dBm	-160 dBm	-160 dBm	-160 dBm	-142 dBm	-160 dBm

### GPS OUTPUT

1 Hz	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
up to 5 Hz	Yes	Yes	Yes	Yes	Yes	Yes	No	No

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## PROTOCOLS

TSIP	No	No	No	No	No	No	Yes	Yes
NMEA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TAIP	No	No	No	No	No	No	Yes	Yes
RTCM	No	No	No	No	Yes	No	Yes	No

## GENERAL

SBAS	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
AGPS	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
DGPS	No	No	No	No	Yes	No	Yes	No
COCOM Velocity	<515 m/s	<515 m/s	<515 m/s	<515 m/s	<515 m/s	<515 m/s	<515 m/s	<515 m/s
Acceleration	2 G	2 G	2 G	2 G	2 G	2 G		2 G
On board reset controller	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Flash programmable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

## ANTENNAS

Supports external active antenna	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Supports passive antenna	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
External LNA for passive required	No	No	Yes	No	No	No	NA	No
Open/Short Detection built in	No	Yes	No	Yes	Yes	Yes	Yes	Yes
Internal LNA gain	19 dB	19 dB	NA	19 dB	19 dB	19 dB		20 dB

## LOAD OPTIONS

32kHz Clock onboard	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
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## INTERFACES

Serial	1	1	1	1 (2 ports joined)	1	1	2	2
USB	No	No	No	No	1	1	No	No

## MECHANICAL

	19.0 x 19.0 x 2.54 mm	19.0 x 19.0 x 2.54 mm	10.0 x 11.0 x 2.01 mm	26.0 x 26.0 x 6.0 mm	16.0 x 12.2 x 2.13 mm	17.0 x 22.4 x 2.13 mm	26.0 x 26.0 x 6.0 mm	19.0 x 19.0 x 2.54 mm
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## SHIELD

	Yes	Yes	-05 only	Yes	-20 only	No	Yes	Yes
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