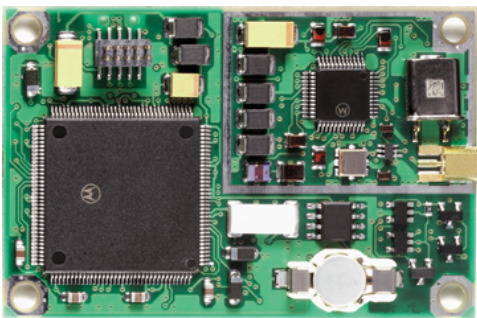


Introducing Our Next Generation GPS

M12 Oncore



Actual Size = 60mm * 40mm

- ④ 12 Channel receiver
- ④ 3.0v Technology
- ④ Tiny footprint 60x40x10mm
- ④ Low power <0.225W
- ④ Fast Acquisition
- ④ Excellent Tracking Performance
- ④ 3 & 5Volt Antenna Compatibility

The M12 Oncore is the first in a line of 'next generation' board level GPS solutions from Motorola. Utilising next generation M•CORE™ microprocessor technology, the M12 Oncore is able to offer a range of important system benefits for your application.

Higher integration and 3Volt technology allow smaller, lighter, lower power solutions to be designed enabling more innovative use of GPS. The M12 Oncore is the smallest, lowest power board level GPS in its class consuming only 0.225W of power, and is capable of driving 3 and 5Volt antenna's for backward compatibility.

As you would expect from Motorola we have taken nothing away; the M12 Oncore displays leading edge performance in a competitive marketplace.

M12 Oncore like previous Oncore products is manufactured to the Automotive Quality Standard QS9000.

M12 Oncore - Low Power GPS

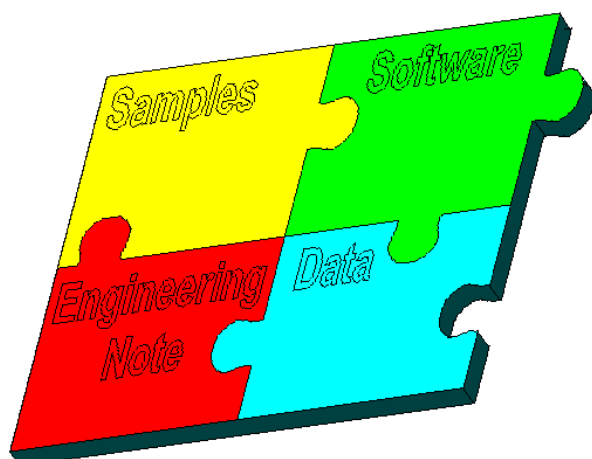
M12 Oncore Features and Benefits

Features	Benefits
12 Channel receiver	<p>M12 Oncore is able to track up to 12 satellites</p> <ul style="list-style-type: none"> ◆ More satellites aid tracking during intermittent visibility ◆ Improved Urban Canyon performance
3 Volt technology	<p>2.75 – 3.2v Power Supply</p> <ul style="list-style-type: none"> ◆ Direct connection to latest micro-controllers ◆ Saving power ◆ Saving board space
Low power	<p><0.225W Power consumption, 0.29W inc. typical 3v Antenna</p> <ul style="list-style-type: none"> ◆ Lowest in its class ◆ Half of previous Oncore generations
Tiny Footprint	<p>60x40x10mm footprint</p> <ul style="list-style-type: none"> ◆ Space efficient board ◆ Low Volume
Fast Acquisition	<p>Performance:</p> <ul style="list-style-type: none"> ◆ TTFF Cold – 60 seconds ◆ TTFF Warm – 40 seconds ◆ TTFF Hot – 15 seconds ◆ Re-acquisition - <1 sec
Excellent Tracking Performance	<p>Performance:</p> <ul style="list-style-type: none"> ◆ Excellent Urban Canyon Performance ◆ Excellent Under Foliage Performance
3 & 5Volt Antenna Compatibility	<p>3 & 5Volt Antenna's for easier system integration</p> <ul style="list-style-type: none"> ◆ Diagnostics for 3V and 5V Antenna's ◆ Total Protection from antenna short circuits

M12 Oncore - High Performance GPS

M12 Oncore Availability

Available Now



Samples

Engineering Note

- ◆ Full System Integration Notes
- ◆ Outline Drawings
- ◆ Connector Pin-outs

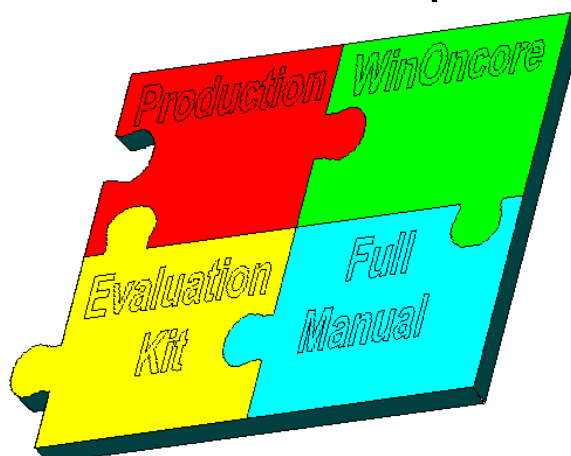
DOS Controller Software

- ◆ New M12 Oncore Commands
- ◆ DOS controller Command Set

Data

- ◆ Single Page brochure

Available Sept 99



M12 Production

Full Manual

- ◆ Full M12 Oncore Manual

Evaluation Kit

- ◆ Full Evaluation Kit with Printed Manual

WinOncore Software

- ◆ Windows based Evaluation Software
- ◆ Record GPS tracks and data

M12 Oncore - High Integration GPS

M12 Oncore Description

M12 Oncore is the first OEM board using the latest two-chip 3-volt GPS solution from Motorola.

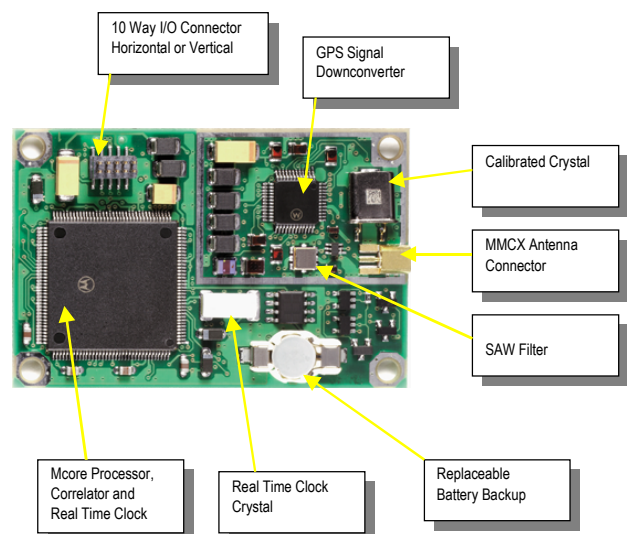
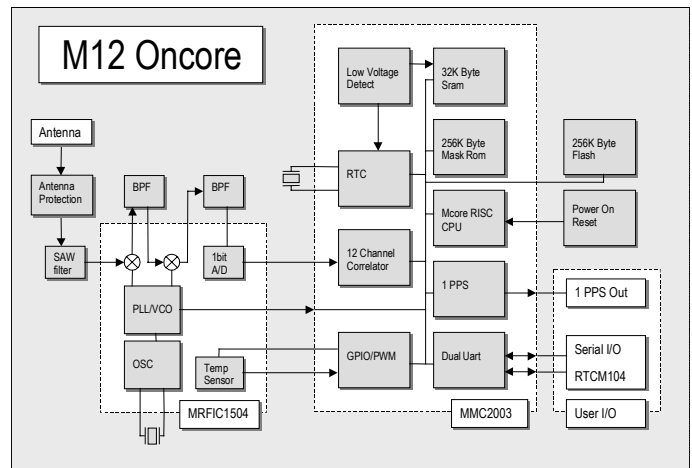
All of the functionality for GPS is incorporated into a radio front end (MRFIC1504) and M●CORE™ processor with correlator (MMC2003).

Satellite signals are down-converted via a dual conversion radio (for improved unwanted signal rejection) and digitised ready for use by the M●CORE™ Correlator.

High performance SAW filtering and Calibrated crystals ensure unrivalled start-up times, high performance jamming immunity, and superior tracking performance.

The M●CORE™ processor performs all of the PVT (Position Velocity and Time) calculations, and manages the I/O interface.

The M12 Oncore delivers a highly integrated GPS Solution, with unrivalled GPS tracking performance, at a quality you have come to expect from Motorola.



M12 Oncore - High Quality GPS