

M12M Navigation GPS Receiver

Designed by Motorola, the M12M is a true 3 Vdc replacement to the current M12+ receiver. The M12M has the same "form, fit, function" as the M12+ (same options, mechanical dimensions, and communication commands) and uses the SiRF GPS MG 2000 IC within the RF section and a TCXO instead of a standard crystal oscillator providing a higher degree of reference oscillator stability.

The M12M has an Input Gain Range of 10-50dB, where the M12+ has a range of 18-36dB. The M12M Timing unit has improved Time to First Fix - approximately 150 seconds Cold Start where the M12+ is approximately 200 seconds, and power consumption is approximately 150mW.

(data sheet)

[M12M 2019 Roll-Over Report](#)

[M12M 2019 Roll-Over Video](#)

[M12M 2019 Roll-Over and Base Date Info](#)

[M12M Part Number History](#) [Product Change Notice \(PCN 2016\)](#) [Product Change Notice \(PCN\): M12M GPS receiver board RFIC component\(Product Change Notice\)](#) [M12M ID Method](#)

i-Lotus, manufacturer of the M12M GPS receiver board, has issued a Product Change Notice (PCN) that covers the RFIC component, which is going End of Life (EOL) in Q1 of 2013. Synergy Systems, LLC is making every effort to contact existing and past customers of the M12M and alert them to this component change and the transition to the updated M12M product in the 1st quarter of 2013. Except for better sensitivity and closer PPS timing to UTC, all of the M12M features and specifications remain as stated in the original M12M datasheet and M12M User's Guide. The M12M receiver's sensitivity has increased by 2 dB and accuracy to UTC has been improved from 36 ns down to 10 ns. The M12M has been manufactured using the P/N GSCi2000-TR RFIC from CSR (originally SiRF) since 2006. The CSR RFIC component will be going EOL in Q1 of 2013 at which time the M12M with the new STM RFIC will be phased in. i-Lotus has sourced & selected the STM P/N STA5630 RFIC as a replacement and has implemented the M12M PCN for the M12M GPS timing and navigation boards.

Since this PCN only covers a component change, the part numbers for the STM based M12M will remain the same as the CSR based RFIC. The M12M with the STM RFIC remains full RoHS 6 of 6 and is 100% backward compatible with earlier versions.

Please contact Synergy Systems with questions, comments and order migration assistance.

Thank You,

Synergy Systems, LLC Technical Support