

RELEASE NOTES

(D)AARC5XX Series

Front End Firmware Release RMS1877-04-E

These release notes contain important information about the new firmware and how it will affect the performance of instruments in which it is installed. The notes outline functional enhancements, adaptive changes and, if applicable, problem corrections.

Please read this documentation carefully. References to pertinent sections in the product's user's guide are shown in square brackets.

Compatibility:	Host Firmware Required	Support Software
DAARC500 (Gen2)	≥ RMS11030-03-D	≥ Jan/2017
AARC500 (Gen-2)	≥ RMS11029-03-D	≥ Jan/2017
AARC510	≥ RMS11031-02-D	≥ Jan/2017
DAS500	≥ RMS11035-03-C	≥ Jan/2017
AARC51	≥ RMS11093-01-D	≥ Jan/2017
AARC52	≥ RMS11122-01-D	≥ Jan/2017
DAARC500 (Gen-1)	N/A	N/A
AARC500 (Gen-1)	N/A	N/A

- The firmware now supports three GPS data output modes: 'Off', 'On-Basic', and 'On-Full'. The first two modes correspond to 'Disabled' and 'Enabled', which were the only two modes supported in previous versions of the firmware.

The 'On-Full' mode multiplexes GPS auxiliary data (QI, # of satellites, HDOP, age-of-differential, and undulation) in one of the fields of the data packets sent to the Host. Data packets now also include the multiplexer ID. Each of the 5 auxiliary variables is thus updated at a rate $F_{GPS}/5$, where F_{GPS} is the output rate of the GPS receiver.

Note that:

- This functionality has been implemented *without* changing the data packet size.
 - The latest version of the Support Software (Jan/2017) automatically handles the de-multiplexing of the auxiliary fields.
- The firmware has been extended to support the AARC52, which is essentially a new version of the AARC51 with two magnetometer inputs and an embedded GPS receiver.