SERVICE BULLETIN ASM-005

Product: Antenna System Monitor

Subject: Firmware 2.0 Release

Description

This Service Bulletin announces the release of baseline 2.0 firmware for the Antenna System Monitor (ASM) series products.

The version 2.0 firmware update file ("FPP") is available for download from the RFI website, and it may be flashed into existing ASM models by following the *Maintenance – Firmware Update* process in the Graphical User Interface (GUI) or User Manual.

Product Enhancement

The version 2.0 firmware provides the following new feature for the ASM;

i) Activity Indicator ("Act")

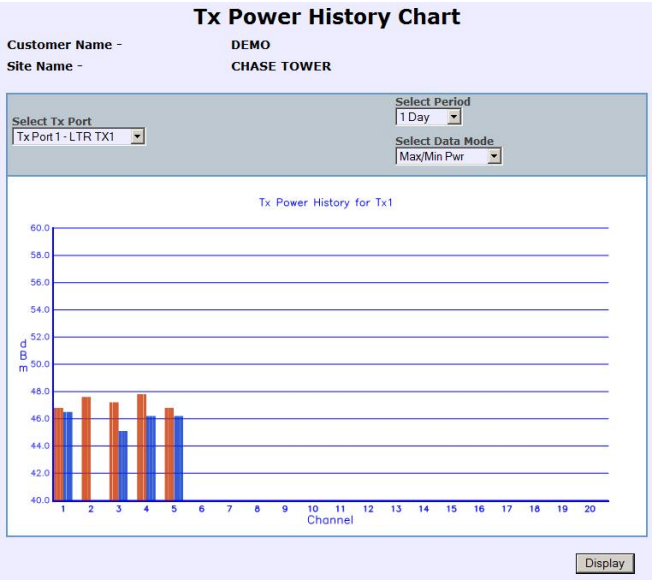
This feature provides an indication of the currency of the *Last recorded activity above threshold* value being displayed in the Status screens. If the Act indicator is lit, the value displayed was measured in the last measurement cycle. If the indicator is dim, the value displayed is aged. If the indicator is not displayed at all against any channel line, then that channel is currently disabled and is not being included in measurement cycles.

Chan No.	Channel ID	ON	Freq	Last recorded activity above threshold			
				Act	Power	Ins Loss	VSWR
Tx1-1	West OPS	Yes	421.50000 MHz		77.62 W +48.9 dBm	0.0 dB	1.28:1

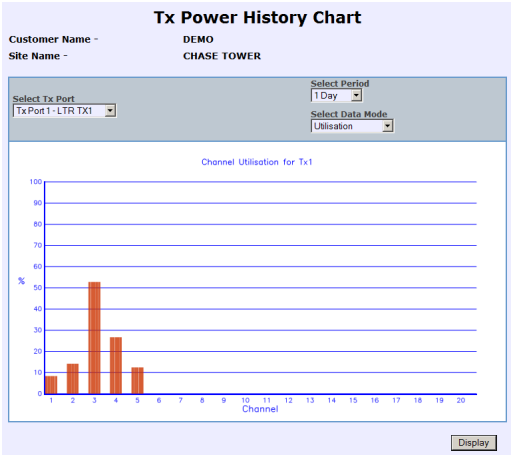
ii) New History Chart

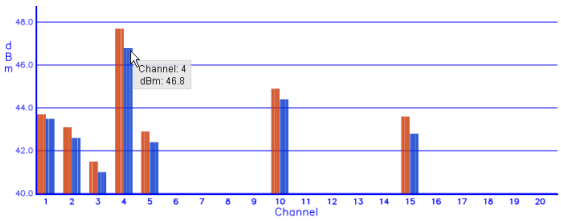
Two History Chart types are now available; Max/Min Power, and Channel Utilisation.

Max/Min shows the maximum and minimum Tx Power measured for each channel on the selected port – over the selected period. This data can indicate Tx PA power sag, combiner insertion loss drift, or other conditions that may be causing variable RF output power.



Hovering the mouse cursor over the upper portion of a bar will display its actual value.

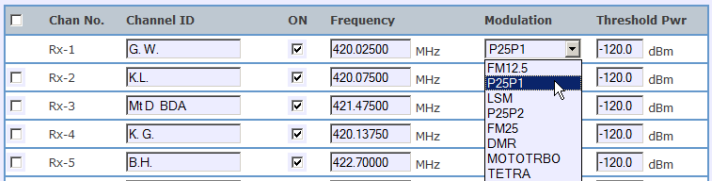




Utilisation shows a representation of the duty cycle of each channel on the selected port – over the selected period. This data can be used to indicate the loading on each channel being monitored and can assist in assessing busy traffic periods or congestion.

The corresponding logged data file can also assist in identifying the co-incidence of keyed channels – which may assist in analyzing intermodulation (IM) occurances.

iii) New measurement modulation types



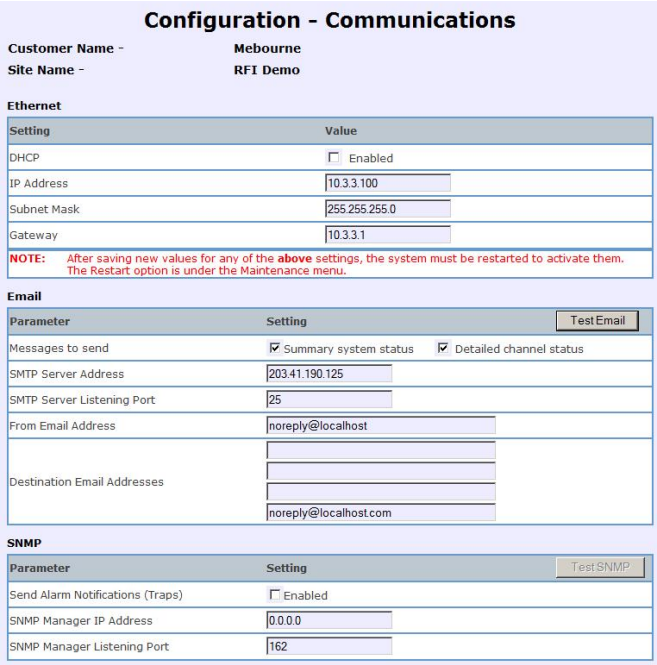
Several new modulation selections have been added to the Tx and Rx Configuration screens in the GUI.

TDMA protocols are now available.

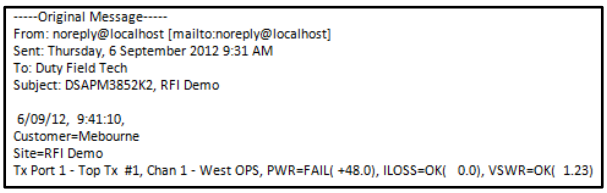
Also, the measured channel bandwidth is now selected by the Modulation selection. For example, APCO25 Phase 1 (“P25P1”) defaults to 12.5KHz automatically, and TETRA to 25KHz. Where multiple selections are possible, these are labeled accordingly (“FM12.5” is Analogue FM 12.5KHz, and “FM25” is Analogue FM 25KHz).

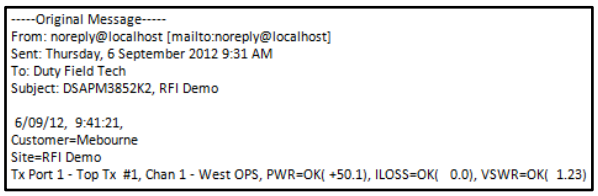
iv) SMTP (Email) and SNMP Alarms

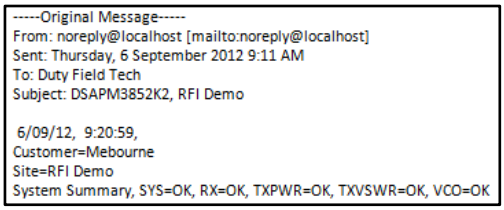
SMTP (Email) and SNMP (Traps) alarm capability has now been added to the ASM.



Email alarms may be sent to up to four (4) recipients, with either Summary Status alarms, which emulate the four ASM alarm relay outputs, or Detailed Channel Status alarms being available for selection. Emails are sent on an alarm state being triggered, or cleared.







For SNMP, northbound traps can also be sent to notify alarm events. SNMPv2c is implemented, and MIB files are available from RFI.

Compatibilities

Firmware version 2.0 for the ASM is compatible with all models of the ASM1317, ASM3852, ASM7487 and ASM8796.

However, remapping of the storage file system to cater for the SMTP and SNMP features means that all currently stored log data in any K1 model ASM will be lost during the upgrade process. Users should download and save existing data from their K1 model ASM(s) if it is required for later reference or use.

Cost Impact

Firmware version 2.0 is available to RFI customers at no charge.

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