



SERVICE BULLETIN ASM-007

Product: Antenna System Monitor

Subject: Firmware 2.10 Release

Description

This Service Bulletin announces the release of baseline 2.10 firmware for the Antenna System Monitor (ASM) series products.

It is strongly recommended to upgrade all APMs to this firmware revision to remedy several issues with previous firmware versions.

The version 2.10 firmware update file ("FFP") 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 2.10 firmware provides the following new features for the ASM;

i) Secondary SNMP Server Address


This feature adds a second SNMP Server Address to provide for redundant SNMP server configurations. SNMP northbound traps are sent to both nominated SNMP server addresses when provided in the GUI.

SNMP		
Setting	Value	
Send Alarm Notifications (Traps)	<input type="checkbox"/> Enabled	
	Primary	Secondary
SNMP Manager IP Address	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>
SNMP Manager Listening Port	<input type="text" value="162"/>	<input type="text" value="162"/>
<input type="button" value="Test SNMP"/>		
<input type="button" value="Defaults"/> <input type="button" value="Discard Changes"/> <input type="button" value="Save"/>		

ii) Secondary Manager Messages Address

This feature adds a second Manager Messages destination address to provide for multiple users of the Manager Messages. Manager Messages are sent to both nominated addresses when provided in the GUI.

Setting	Value	
Auto Status Packets	<input type="checkbox"/> Enabled	
Auto Traffic Packets	<input type="checkbox"/> Enabled	
Max Traffic Period	<input type="text" value="60"/>	
	Primary	Secondary
Manager Address	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>
Manager TCP Port	<input type="text" value="9123"/>	<input type="text" value="9123"/>
Manager UDP Port	<input type="text" value="9124"/>	<input type="text" value="9124"/>
Manager Use TCP for Status Packets	<input type="checkbox"/> Enabled	



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Calibration - Rx Port

Customer Name - Demo
Site Name - Mt Dandenong

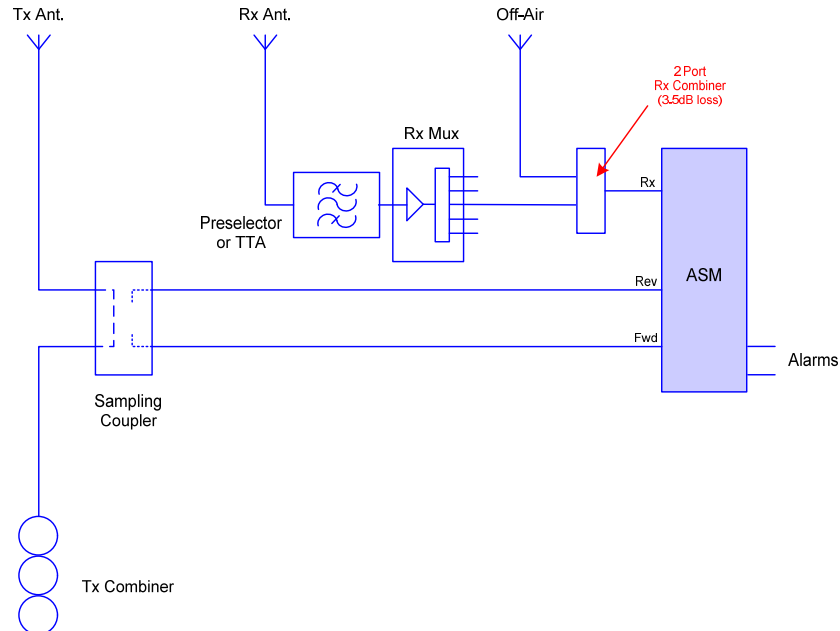
Setting	Value
Rx Subsystem Gain(Loss)	- 6.0 dB
Rx Post Gain(Loss)	- 3.5 dB

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iii) Rx Calibration

This feature allows the inclusion of a value for an addition loss that may be introduced into the Rx path by a multi-input combiner when 2 or more Rx paths are being used in the ASM installation. This value is then added into the calculation of Rx Level and Antenna Isolation values.

Examples of using this feature include; when receive signals from more than one Receiver Multicoupler are being combined, or when both receiver multicoupler and external off-air signals are being monitored.



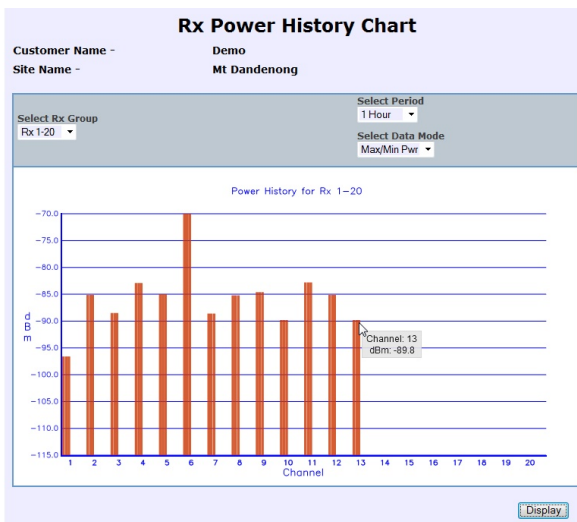
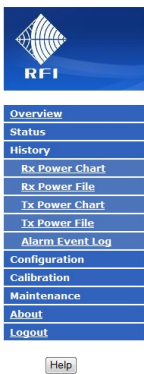
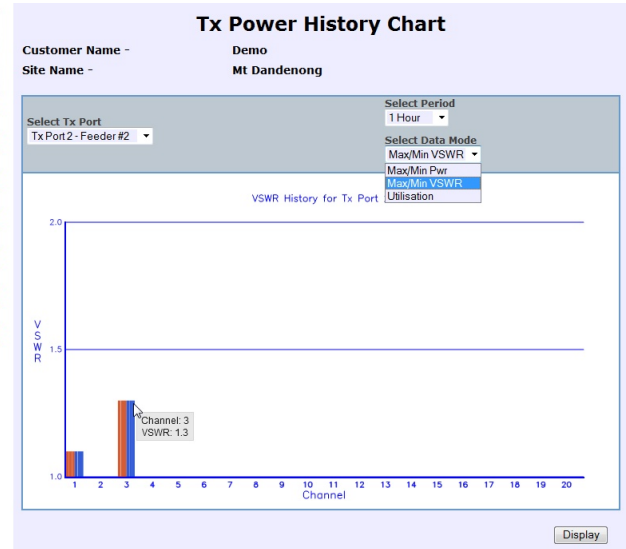
Example Installation – Rx Post Gain (Loss) component shown

iv) Added History Graph selections

Additional History Graph selections are now available. Tx VSWR and Rx Level and Rx Utilisation displays may now be selected under the *History* menu.

Hovering the mouse near the top of a line will show the displayed value.

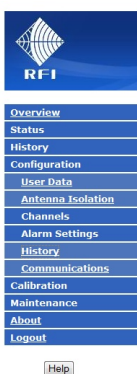
In these displays, only values that exceeded the entered threshold values are displayed.



Note: Remember that History data is only logged when there has been a change in value greater than the Logging Resolution value entered in the *Configuration – History* GUI page.

If there have been no changes exceeding this change value during the retrieved period, there will be no data displayed.

Also, if the threshold value is set too low, then all readings will exceed the threshold value, displaying a 100% utilisation in the Rx Utilisation graph.



Configuration - History
Customer Name - Demo
Site Name - Mt Dandenong

Setting	Value
Recover 'Last Recorded' Status values after power loss	<input checked="" type="checkbox"/> Enabled
Rx Power Logging	<input checked="" type="checkbox"/> Enabled
Tx Power Logging	<input checked="" type="checkbox"/> Enabled
VSWR Level Logging	<input checked="" type="checkbox"/> Enabled
Logging Interval	10 Sec
Rx Power Logging Resolution	0.5 dB
Tx Power Logging Resolution	0.5 dB
VSWR Level Logging Resolution	10 %

Defaults Discard Changes Save

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Additional fields are now provided in the *Configuration – History* screen to support the new History features.

v) Retention of Last Recorded Values

The Last Recorded Values are now retained after power has been removed from the ASM – such as during site works, or power outages. This feature allows measured values, particularly from intermittent channels, to be retained through power outages.

vi) Unsecured Email Login

Unsecured email site login is now provided for email alarms.

This feature allows email alarms to be sent through a third party email provider (i.e. Gmail™, Jango™, etc) when an account is held to use that server.

The third party email provider's account Username and Password should be entered. Selecting *Reveal* will display the password.

Email		Test Email	
Setting	Value		
Messages to send	<input checked="" type="checkbox"/> Summary system status <input checked="" type="checkbox"/> Detailed channel status		
SMTP Server Address	<input type="text" value="203.41.190.229"/>		
SMTP Server Listening Port	<input type="text" value="25"/>		
SMTP Server Login Username	<input type="text" value="nil"/>		
SMTP Server Login Password	<input type="password" value="••••••••"/> <input type="checkbox"/> Reveal		
From Email Address	<input type="text" value="noreply@localhost"/>		
Destination Email Addresses	<input type="text"/>		
	<input type="text"/>		
	<input type="text"/>		

vii) Addition of Rx Levels to Manager Messages

Rx Level measurement values are now included in Manager Messages. This inclusion has changed the length and format of Manager Messages.

The version 2.10 firmware also addresses the following issues;

viii) Manager Messages using TCP/IP may cause ASM resets.

There are cases where using TCP/IP format for Manager Messages has resulted in unexpected Resets of the ASM. Firmware 2.10 corrects this condition.

ix) History Recording Errors in K1 models

Instances have been noted where History recording in K1 models has been inconsistent. This has resulted in missing or erroneous entries being recorded. Firmware 2.10 corrects this condition.

x) Tx Traffic Packets are still sent when a configured channel is not ON

Tx Traffic Packets were being initiated for Tx channels that were not ON (i.e. not enabled for monitoring). Firmware 2.10 corrects this condition.

xi) Rx Channels pages may not auto-refresh

Instances have been noted where Rx Channels Status page may cease auto refreshing when the *Auto Refresh* box has been selected. Firmware 2.10 corrects this condition.

- xii) Power Supply glitches may cause loss of Config data

Some installations have experienced the loss of Config data as a result of repeated power supply glitches in quick succession. Config data is now protected and checked on power up to ensure integrity of data values. Firmware 2.10 corrects this condition.

- xiii) VSWR Alarm condition does not reliably cycle when a fault condition is cleared

Instances have been noted where VSWR alarm conditions do not reliably clear when the alarm condition has been cleared. Firmware 2.10 corrects this condition.

- xiv) Ethernet LLC packets may cause ASM resets

In some installations on large Ethernet networks, some types of broadcast messages have caused ASM resets. Firmware 2.10 corrects this condition.

Upgrading to Firmware 2.10

Firmware 2.10 *cannot* be applied to units currently operating firmware earlier than 2.0. Units must be updated to firmware 2.0 or 2.05 prior to attempting an update to 2.10. Units currently running firmware earlier than 2.05 should rename the firmware FPP file to "APMxxxxx.fpp" prior to its use. This renaming step is not required once a unit has been upgraded to 2.05 or later.

Applying this Firmware 2.10 upgrade to K1 models will delete all saved History data due to the memory file system being restructured to cater for some of the new features in this firmware 2.10 release.

After applying this upgrade to K2 models, there may be a considerable delay (several minutes) after the upgrade before the unit is available for use due to a re-arrangement of the SD-Card filing system after reboot.

Cost Impact

Firmware version 2.10 is available to RFI customers at no charge.

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