

AK3XV2 RF POWER MONITOR

New for 2017!!

- > **Updated hardware for increased performance**
- > **Much higher data sampling rate for improved detection of complex modulation such as TDMA, SS, PTC, etc.**
- > **Simplified one-step calibration**
- > **Power Track function graphically shows power levels**
- > **Real Time Clock for meaningful timestamps**
- > **Copy function for easy setup**
- > **Integrated bidirectional sensor measures forward and reflected power with PIM better than -155 dBc**
- > **Integrated Ethernet with browser , Telnet and SNMP access to setup, status and control**
- > **Warning and alarm notification via email, SMS and SNMP traps**
- > **Form-C alarm output – C, NO and NC, with manual and auto control**
- > **Highly reliable and remotely upgradeable for extended service life**

AK3XV2D



AK3XV2N



APPLICATIONS:

- Public Safety Radio Systems (Analog & Digital)
- SMR/Trunked Radio Systems
- Public Utility / Transportation Radio Systems
- Paging / Telemetry Systems
- Combined Systems

Description:

The AK3XV2X builds on the successful AK883X series and sets a new standard for price and performance in RF transmitter/antenna system monitors. The RF processor detects equipment failures by monitoring transmit power, VSWR, temperature, supply voltage and transmit key/idle times and operates as a stand-alone monitor with alarm relay output and local display. The Ethernet processor adds powerful network capabilities, including a web server for browser access, USB, Telnet and SNMP. Alarm and warning notification can be enabled for email, SMS and SNMP traps. Data can be logged to a microSD card for trend and performance analysis.

Local setup is simple and intuitive; the monitor steps through each menu-driven setup parameter and stores the desired limit value in non-volatile memory. Browser

access is even simpler. The monitor serves a series of web pages for both status, setup and maintenance.

If a warning level is exceeded then a warning notification will be sent. If an alarm level is exceeded the alarm relay will be activated and an alarm notification will be sent. **Note: the alarm relay can be controlled independently through the web interface.*

The backlit LCD displays forward and reflected power, VSWR, power supply voltage, temperature (external sensor included) and alarm status. Front panel buttons are used to adjust limits and clear alarms, as well as for basic network setup. Text menu setup and status are also available through Telnet and the USB port.

Absolute Maximum Ratings:

Power Supply Voltage	42VDC	RF Power FWD	1KW
Power Supply Current	0.35A	RF Power REFL	1KW
Operating Temperature	-30C to +70C	Alarm Relay Current	1.0A @ 30VDC
Storage Temperature	-40C to +85C		

ORDERING INFO

FORMAT: **AK3XV2 D/N – R/L/A/AB/B/C – 10/100/350/500 – F/M**

AK3XV2 Base Model Number

D/N Connector Type: **D**in (7/16) or **N** connectors

R/L/A/AB/B/C Frequency Band: **R**: 1-20 MHz **L**: 50-100 MHz **A**:100-325 MHz **AB**: 300-700 MHz **B**: 406-1000 MHz **C**: 1.8-2.7 GHz

10/100/350/500 *Max Power Range: **10W**, **100W**, **350W**, **500W**,

F/M Connector Combo: **F**emale/**F**emale, **M**ale/**F**emale, **F**emale/**M**ale, **M**ale/**M**ale

Example: AK3XV2**N-A-350-FF** corresponds to N type, 100-325 MHz, 350W max power, female/female connectors

OPTIONAL ACCESSORIES

AKPNL1 2U 19" Rack Mount Panel for (1) AK3XV2 (N or D models)

AKPNL2 2U 19" Rack Mount Panel for (2) AK3XV2 (N models only)

AKDC4812 -48VDC to +12VDC Converter for up to (2) AK3XV2

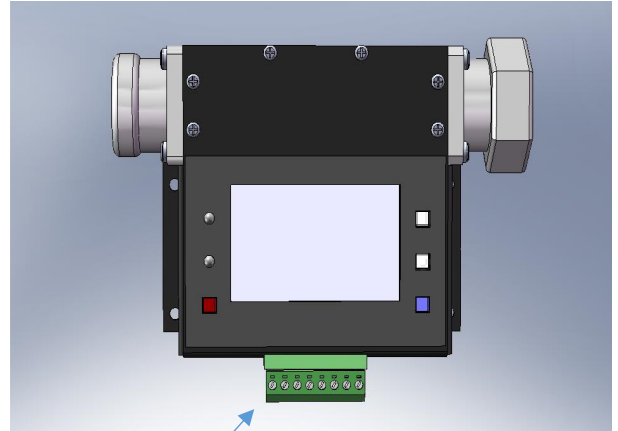
Specifications: *(subject to change without notice)*

PARAMETER	MIN	TYPICAL	MAX	UNITS	NOTES
Input Voltage	9		30	Volts DC	AC Adapter included (12VDC)
Input Power (DC)					
Relay Off		0.5		Watts	
Relay On		1.2		Watts	
Operating Temperature	-30		+70	DegC	LCD display limitation (-20C, no damage)
Storage Temperature	-40		+85	DegC	
RF Power Range					
-10 Models	0		10	Watts	
-100 Models	0		100	Watts	
-350 Models	0		350	Watts	
-500 Models	0		500	Watts	*Check with AKS about other ranges
RF Power Resolution					
-10 Models		0.01		Watts	
-100 Models		0.1		Watts	
-350 Models		0.1		Watts	
-500 Models		0.1		Watts	
RF Frequency Bands					
AK883XX – C Models	1.8		2.7	GHz	
AK883XX – B Models	406		1000	MHz	
AK883XX – AB Models	300		700	MHz	
AK883XX – A Models	100		325	MHz	
AK883XX – L Models	30		100	MHz	
Sensor PIM	-167	-160	-155	dBc	
Insertion Loss	0.05	0.05	0.1	db	(.1db – C models)
VSWR Range	1.0:1		24.9:1		9.9:1 on LCD
Accuracy		2%			Requires site calibration
Temperature Sense Range	-40C		+85C		External sensor included
Alarm Relay Current	0		1	Amp	@30VDC
Weight		1.5		LB	Includes box, AC adapter & USB cable
Connectors					
RF (N)		N Type			Comb. F/F, F/M, M/F avail.
RF(DIN)		7/16 Type			Comb. F/F, F/M, M/F, M/M avail.
Power & Alarm		8-POS			Depluggable terminal block
USB		USB-Mini			Cable included
microSD		uSD			Push-push
Ethernet		RJ-45			10/100 Base-T

Electrical (N and D models, D shown):

Pin one of the terminal block is on the left side when viewed from the front. Pin functions are as follows:

<i>Pin</i>	<i>Function</i>
1	+DC Power in, 9–30VDC
2	Ground
3	Keyline+
4	GND (common for 3 & 5)
5	Temperature+
6	Relay NC
7	Relay C
8	Relay NO



PIN 1

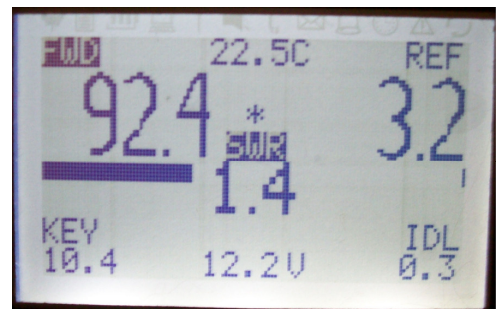
Note 1: The striped lead on the supplied AC adapter is positive and should be connected to pin 1 on the monitor. The other wire should connect to pin 2.

Note 2: Keyline+ can also be used as a general-purpose alarm input. In either case, it requires a pull-to-ground source, such as relay contacts or an open-collector transistor. Switching is at ~1V. GND is shared with the temperature sensor input.

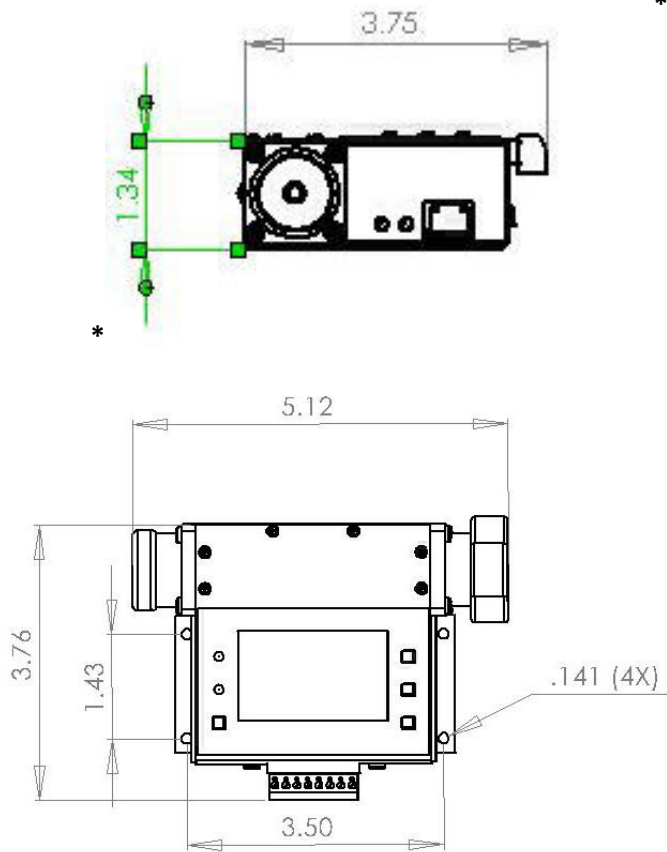
Note 3: NO-NC functionality is reversed if NC is selected in software.

Note 4: Temperature sensor is non-polarized. Ring (mounting) terminal is isolated from sensor leads.

Sample



Dimensions & Mounting (7/16 DIN):



Dimensions & Mounting (N):

