



RWR Threats Warnings Display

Advanced, LCD based Radar Warning Receiver (RWR) Display

- *Digital display*
- *High Reliability, Decreased Maintenance*
- *FFF Replacement to existing CRT displays*
- *Advanced, color, Threats Warning management*
- *Wireless link Supported*

Astronautics' smart 3" Radar Warning Receiver (RWR) display is an advanced solution for modern & legacy Electronic Warfare (EW) systems. The high-reliability, color Active Matrix LCD (AMLCD) based device incorporates an internal DSP processor that handles external interfaces, processing and RWR graphics display generation/management. The embedded DSP processor supports multiple threats processing & display allowing the display to become a powerful **threats management system**, with color presentation of threats and internal threats management that off-loads the main RWR processor.



Astronautics' RWR display is also operating in full compatibility mode, allowing a Form, Fit & Function (FFF) **replacement to legacy systems that currently use CRT based display**. The significantly high-reliability (over 6,000 hours) display provides a significant Life Cycle Cost (LCC) improvement, compared to existing and difficult to maintain CRT based displays. The expected improvement is in a factor 30-40 times (!)



The Astronautics' RWR display is **fully digital**. With a high brightness, sunlight readable color LCD display, it supports the generation and update of threats information, in a readable, color presentation. The internal DSP processor creates and manages the threats symbols, as defined by the RWR processor, using a previously defined internal symbol library. The library contains alphanumeric fonts and bit-map symbols that are loadable to the unit, in accordance to a specific program's requirement. Typical RWR symbols are pre-programmed, including standard attributes. Any additional attributes, and/or symbols, could be defined and loaded externally by the customer.

The RWR display can operate in a digital mode of operation, receiving digital data for the display generation, over serial communication channel (RS-422, Ethernet, MIL-STD-1553), or function as a full CRT display replacement – receiving analog stroke inputs (X/Y stroke signal).

The **analog interface will maintain compatibility to existing** legacy RWR displays, and will allow an immediate replacement to those displays, with no effect on the rest of the system. The analog symbol drawing information is internally converted into digital, allowing the internal DSP processor to re-create the required threats display over the LCD. Although created digitally, the display is monochrome (Green), and will look identical to legacy RWR display formats. The only difference in this case will be the **significant increase in reliability**.



ASTRONAUTICS C.A. LTD.



RWR Display

Color Threats Display * High-Reliability * CRT Displays Replacement

GENERAL

- ❖ High Resolution Display
- ❖ Suitable for military aircraft & helicopters
- ❖ Loadable symbol library
- ❖ Fully digital implementation internally:
 - ❖ Color LCD based display head
 - ❖ DSP processor
- ❖ Internal processing:
 - ❖ Creation of display formats
 - ❖ Symbols generation
 - ❖ Processing data input
 - ❖ Dynamic display management

CHARACTERISTICS

Viewing Angles: - Horizontal: $\pm 45^\circ$
- Vertical: 0° to $+30^\circ$

Display Area: 2.4"x2.4" (61.0 x 61.0 mm)

Display Resolution: 300 x 300 RGB pixels

Colors: 256,000

Brightness Levels - Day Mode: 0.1 fL to 200 fL
- Night Mode: 0.05 fL to 2.0 fL
(NVIS Compatibility Supported)

Contrast Ratio Up to 100:1 at low ambient light

Power: 28VDC (MIL-STD-704A), 25 W (Additional 35W for heaters)

Temp: -40°C to $+55^\circ\text{C}$ ($+71^\circ\text{C}$ Intermittent)

EMI/EMC: Per MIL-STD-461C/D

NVIS Compatibility: Per MIL-STD-3009

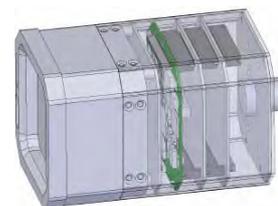
Environmental conditions: Per MIL-STD-810E

MTBF 10,000 Hours

TREATS ENVELOPE SUPPORTED

Envelope: Surrounding diamond/circle; Chevron; Underline

Attributes: Color; Blink



MECHANICAL

Dimensions: 82.8mm x 82.8 mm x 126.5 mm

Weight: 2.4 Lbs (1.1 Kg)

Mounting: Standard 3AT clamp or direct panel mounting (4 bolts).

Cooling: Self cooling

INTERFACES

Analog: Stroke (X/Y)

Digital: RS-422, Ethernet, Wireless or MIL-STD-1553 (Optional)



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