REV A 11082021

SAM G3 Plus
## *ARINC 818 Stand Alone Converter Module*

SAM G3 Plus is a portable converter module that converts ARINC 818 to/from HDMI, therefore allowing you to view ARINC 818 video on a standard computer monitor, or transfer live video from a graphics card onto ARINC 818.

The SAM G3 Plus can support multiple video formats (up to 15, factory configured) that are easily selectable via a touch screen on the unit. Loaded formats can be of different conversion directions (ARINC 818 to/from HDMI) and can be of different ARINC 818 link rates, video resolutions, and pixel types. The SAM G3 Plus supports ARINC 818 link rates up to 10 Gbps.

The intuitive touch screen provides an easy determination of the input video status and allows for basic control of the unit - selecting video formats, turning on an internal test pattern, etc.

SIDE 1

POWER USB C

SIDE 2

HDMI SFP+

Applications

Fiber to HDMI Configuration

Mission Computer

Cockpit Display

ARINC 818 Recorder

OR

ARINC 818

SAM G3 Plus

Line spy-out ARINC 818

Standard Monitor

HDMI

HDMI to Fiber Configuration

Graphics Card

HDMI

SAM G3 Plus

ARINC 818

Cockpit Display
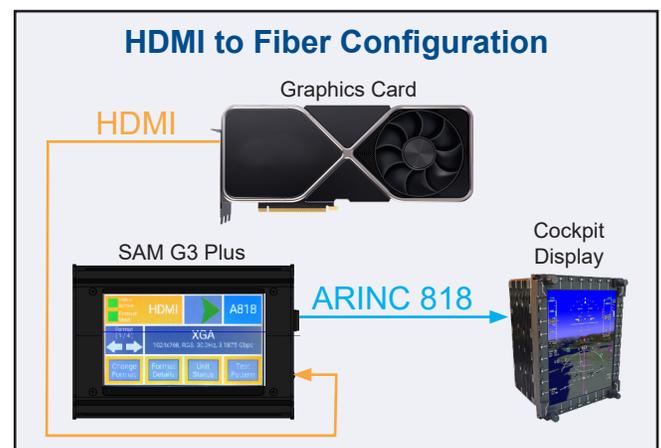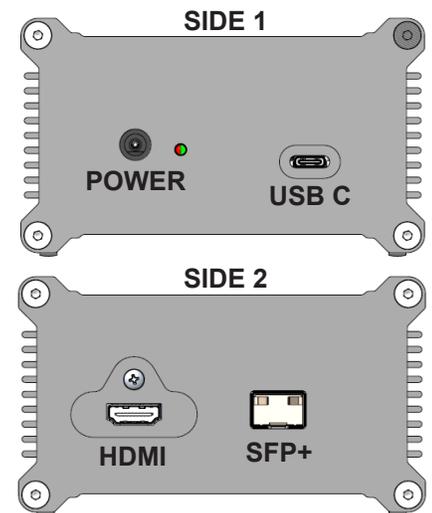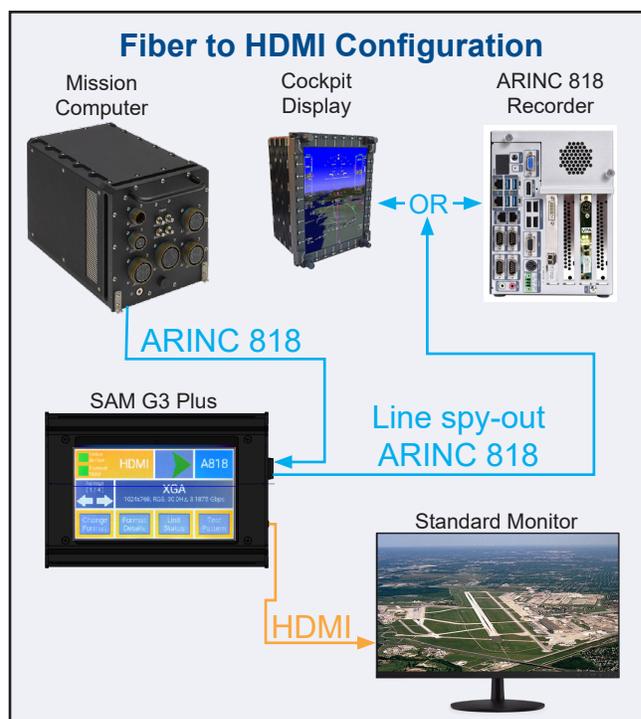
Application Software

The unit is designed to operate stand-alone, with only a power connection; however, it is delivered with Windows application software that can connect to the unit via USB. This application allows for sending and retrieving images to/from the unit, viewing the status of incoming video, and managing video formats stored in the unit.

- Load test images for transmit on ARINC 818
- Capture, view and save images received on ARINC 818
- Load and capture ARINC 818 Object 0 data.
- Set default Object 0 Data for stand alone operation
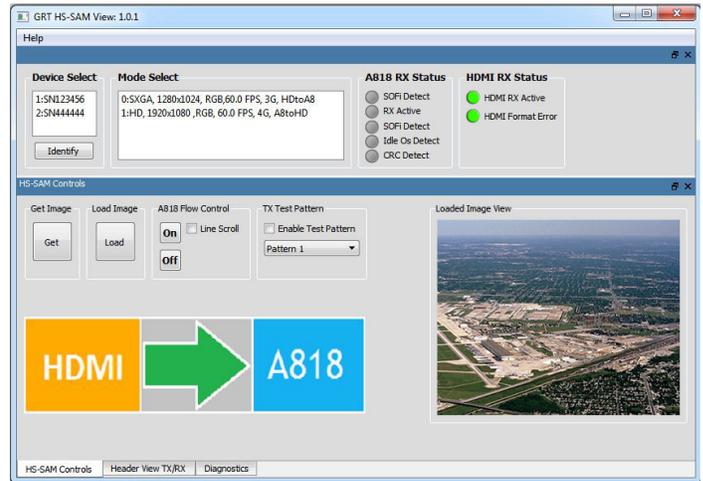
The Application can control multiple SAM G3 Plus units connected via USB

Specifications

Power	Wall adapter (24VDC, 100–250VAC at 50–60Hz) or Compatible with USB Type C 5V/3A (Requires 10 Watts)
Enclosure	Aluminum housing, (6.3 x 4.5 x 2.5 in.) Brackets (Bracket Optional)
Touch Screen	Color, Capacitive, 2.7x4.2 in. , 480x272 pixels
Operating Temperature	0–50°C (0–131° F)
ARINC 818 Optical	Transmit and receive via SFP+ Fiber optic module (LC Type Plug) 850nm MM or 1310nm SM SFP+
ARINC 818 Link Rates (Gbps)	1.0625, 2.125, 3.1875, 4.250, 5.0 , 6.375, 8.5, 10.0
ARINC 818 Pixel types	RGB24, RGB565, Monochrome 8 Bit
HDMI (Contact GRT for other HDMI formats)	Factory available formats: XGA(1024x768) @ 60Hz SXGA(1280x1024) @ 60Hz SXGA+(1400x1050) @ 60Hz WXGA(1440x900) @ 60Hz UXGA(1600x1200) @ 60Hz WXGA+(1680x1050) @ 60Hz HD(1920x1080) @ 60Hz/30Hz 2K(2560x1440) @ 60Hz 4K(3840x2160) @ 30Hz
Control Interface	USB Type C
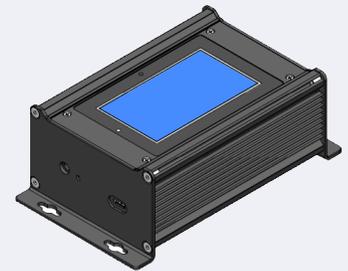
BRACKETED OPTION

How to buy

Determine your part number* for SAM G3 Plus (H3-A8) as follows:

Product group
H3 = SAM G3 Plus

Interface
O3 = FO1310: 1310nm single mode
O8 = FO850: 850nm multimode

H3-A8-__-__-__-____-__

Custom characters assigned by GRT

Optional
BK = Mounting Bracket

Link rate Gb/s
1X = 1.0625	3X = 3.1875	6X = 6.375
2X = 2.125	4X = 4.250	8X = 8.5

10 = 10.0
MM = multiple rates

Video port
HR = HDMI receive
HT = HDMI transmit
HH = Both HDMI RX or TX
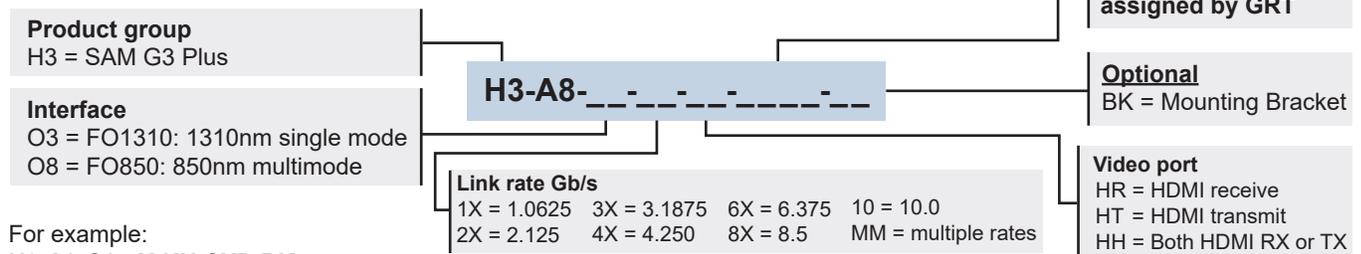
For example:
H3-A8-O8-4X-HH-SXP-BK
*Great River Technology revised its part numbering system effective April 2013.

To order, consult our Distributors page: (https://www.greatrivertech.com/sales)
If no distributor is listed for your region or country or if you need additional information about our custom firmware, contact our headquarters in Albuquerque.