



**AP57X Cable Breakout
(5028-621)**

USER'S MANUAL

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1.0 GENERAL INFORMATION

1.1 Intended Audience

This users' manual was written for technically qualified personnel who will be working with I/O devices using the AcroPack module. It is not intended for a general, non-technical audience that is unfamiliar with I/O devices and their application.

1.2 Preface

The information contained in this manual is subject to change without notice, and Acromag, Inc. (Acromag) does not guarantee its accuracy. Acromag makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Further, Acromag assumes no responsibility for any errors that may appear in this manual and makes no commitment to update, or keep current, the information contained in this manual. No part of this manual may be copied or reproduced in any form, without the prior written consent of Acromag,

1.2.1 Trademark, Trade Name and Copyright Information

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1.2.2 Environmental Protection Statement

This product has been manufactured to satisfy environmental protection requirements where possible. Many components used (structural parts, circuit boards, connectors, etc.) are capable of being recycled. Final disposition of this product after its service life must be conducted in accordance with applicable country, state, or local laws or regulations.

1.3 AcroPack AP57X Cable Breakout Information

The AP57X Cable Breakout panel will mate directly to all 68-pin AcroPack Carriers. The breakout panel and short 68-pin male to male 1 foot cable (seen below) will bring the 1553 primary, secondary, IRIG, Trigger, and Discrete signals from the AP571/2 module out to the field.

1.3.1 Ordering Information

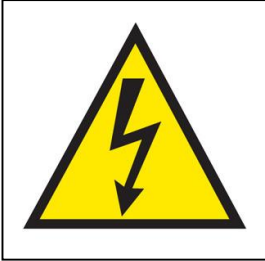
The AcroPack ordering options are given in the following table.

<i>Model Number</i>	<i>Description</i>
5028-621	AP5X Cable Breakout Panel

Note 1: Operating temperature range for models: -40°C to 85°C.

2.0 PREPARATION FOR USE

IMPORTANT PERSONAL AND PRODUCT SAFETY CONSIDERATIONS



It is very important for the user to consider the possible safety implications of power, wiring, component, sensor, or software failures in designing any type of control or monitoring system. This is especially important where personal injury or the loss of economic property or human life is possible. It is important that the user employ satisfactory overall system design. It is understood and agreed by the Buyer and Acromag that this is the Buyer's responsibility.



WARNING: This interfaces to boards with static sensitive components and should only be interconnected at a static-safe workstation.

2.1 Unpacking and Inspecting

Upon receipt of this product, inspect the shipping carton for evidence of mishandling during transit. If the shipping carton is badly damaged or water stained, request that the carrier's agent be present when the carton is opened. If the carrier's agent is absent when the carton is opened and the contents of the carton are damaged, keep the carton and packing material for the agent's inspection.

For repairs to a product damaged in shipment, refer to the Acromag Service Policy to obtain return instructions. It is suggested that salvageable shipping cartons and packing material be saved for future use in the event the product must be shipped.

2.2 Field I/O Connectors

The AP57X breakout panel provides a mating interface between the AP modules via the carrier board 68 pin field I/O connector. The 100 pin ST5-50-1.50-L-D-P-TR Samtec connector is used on the AcroPack card as board to board interconnect. This connector will mate with the 100 pin SS5-50-3.00-L-D-K-TR Samtec connector on the carrier. The stack height is 4.5mm.

Pin assignments are unique to each AP model. Table 2.1 lists signal pin assignments for the module field I/O connector.

Table 2.1 Field I/O Connector Pin Assignments

Field I/O Signal	AP57X Cable Breakout				AcroPack Module ST5 Pin Number
	J1 15PIN DB15 ¹	J2 Secondary Female Jack ²	J3 Primary Female Jack ³	J4 68 Pin Champ Carrier Connector ⁴	
MIL_CH1_PRI_PAD_N			1 Outer	1	2
MIL_CH1_PRI_PAD_P			2 Center Tap	35	1
MIL_CH1_SEC_PAD_N		1 Outer		2	6
MIL_CH1_SEC_PAD_P		2 Center Tap		36	5
GND				3	10
GND	C			37	9
IRIG_CON_OUT	15			6	22
IRIG_CON_IN	8			40	21
Trigger_OUT1	10			7	26
Trigger_IN1	12			41	25
DISC_IO1	3			8	30
DISC_IO2	4			42	29
DISC_IO3	5			9	34
DISC_IO4	6			43	33
GND				10	38
GND				44	37
GND				11	42
GND				45	41
RT_ADR2_IN	2			19	74
RT_ADR1_IN	1			53	73
GND				21	82
GND				55	81

Notes (2.1):

1. J1 – 15PIN DB15 Manufacturer Name: KYCON Part: K66X-E15S-N-VESA
2. J2 – Secondary Female Jack Manufacturer Name: MILESTEK Part: CBBJR79
3. J3 – Primary Female Jack Manufacturer Name: MILESTEK Part: CBBJR79
4. J4 – Carrier Field I/O 68-pin Champ Manufacturer Name: TE Connectivity Part: 5796055-1

Figure 1 Connector Locations

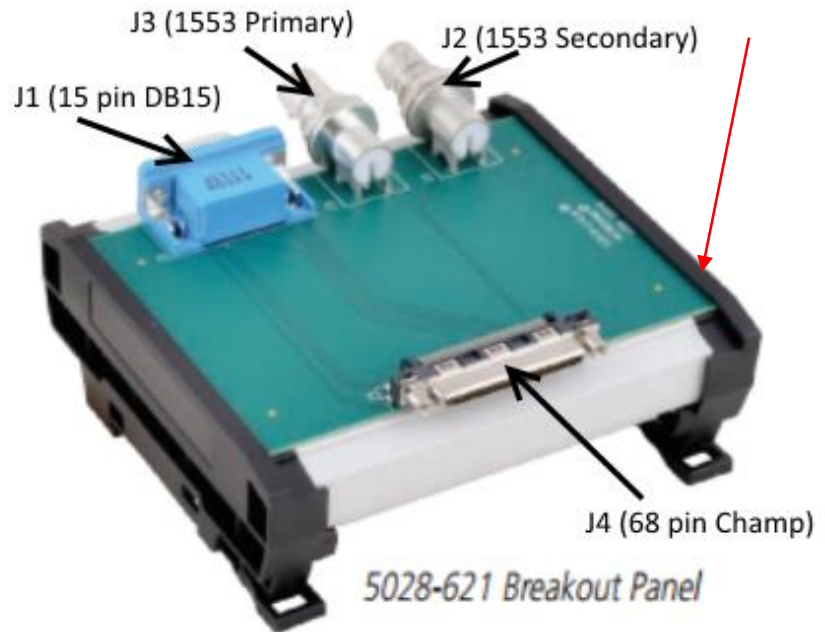


Figure 2 Male to Male 1 foot cable



Signal Descriptions:

See the AME1553-1-AP Hardware Manual for detailed description of the field I/O signals.

3.0 SPECIFICATIONS

3.1 Physical

Height:	54 mm (2.126 in)
Height defines feet bottom to top of J2 and J3 connectors	
Length:	101.73 mm (4.01 in)
Width:	72.26 mm (2.84 in)
Weight Breakout Panel:	4.832 oz (136.984 g)
Weight Cable	4.0912 oz (115.984 g)
Unit Weight (does not include shipping material)	

Certificate of Volatility

Acromag Model 5028-621 AP57X Breakout Panel		Manufacturer: Acromag, Inc. 30765 Wixom Rd Wixom, MI 48393		
Volatile Memory				
Does this product contain Volatile memory (i.e. Memory of whose contents are lost when power is removed) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Non-Volatile Memory				
Does this product contain Non-Volatile memory (i.e. Memory of whose contents is retained when power is removed) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Acromag Representative				
Name: Russ Nieves	Title: Sales and Marketing	Email: solutions@acromag.com	Office Phone: 248-295-0310	Office Fax: 248-624-9234

Revision History

Release Date	Version	EGR/DOC	Description of Revision
07 NOV 2018	A	LMP/MJO	Initial Acromag release.