



PROGRAMMABLE INTERFERENCE BLANKER UNIT - PIBU

A highly configurable solution for optimized interference blanking for fighters, helicopters, and transport aircraft

The Programmable Interference Blanker Unit (PIBU) provides prioritized blanking of aircraft RF transmitters and receivers to avoid mutual interference.

The PIBU is configurable via the PIBU Support Software application, which runs from a standard laptop PC and interfaces the PIBU via standard ethernet interface.

The PIBU's many inputs and outputs can be configured by the user with respect to voltage levels as well as impedances, and the blanking matrix allows any input(s) to map to any output(s). Furthermore, the PIBU provides configurable pulse shaping in the time domain, including independent leading edge, trailing-edge delays and pulse widths.

It also comes with programmable Internal Pulse Generators, which are useful for Receiver look-through operations. Up to 16 Blanker Configuration Sets can be stored in the PIBU and are selectable when installed on the aircraft.

The PIBU features standard 5 V, 7 V, 28 V single-ended blanker I/O's as well as bi-directional and differential channels.

Technical description

The Programmable Interference Blanker Unit (PIBU) uses a modular concept which allows for customization of available blanker I/Os.

The blanking matrix is implemented via powerful FPGA, ensuring low latency and full programming capabilities. An on-chip processor provides an ethernet load function for easy configuration either on-board the aircraft or in a laboratory, using a simple break-out adaptor.

The PIBU is designed for a 2-level maintenance concept in which Built-In Test (BIT) and a discrete Go/No-Go signal provides for detection and signaling of failures.





General technical overview

Input power	115 VAC/400 Hz or 28VDC		
Power consumption	Max. 40W		
Dimensions (l x w x h)	173x238x118mm (6.8x9.37x4.65")		
Weight	Max. 3.6 kg (8 lbs)		
General Interface	Data Loading: Ethernet BIT Monitor: 28 V Discrete Spare General Purpose: 2x28 V Discrete		
Blanking Interfaces (22 Input)	8 type 1 Threshold: 2.2 V or 10 V Impedance 93 Ω or 2.2 kΩ Max. input level: 70 V	12 type 2 Diff, EIA-422 Impedance: 100 Ω	2 type 3 Threshold: 2.2 V or 10 V Impedance 93 Ω, 680 Ω, or 2.2 kΩ Max. input level: 70 V
Blanking Interfaces (29 Output)	8 type 1 Output level: 5 V or 7 V Load Impedance: 93 Ω	9 type 2 Output level: 28 V or 36 V Load Impedance: 300 Ω to 2 kΩ	12 type 3 Diff. EIA-422 Impedance: 100 Ω
Blanking Interfaces (6 Bi-Directional)	8 type 1 Input type 1 + output type 2		

Currently integrated on and certified for:

C-130J, MH-60R, AW/EH-101, Gulfstream G550, F-5.

