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PROGRAMMABLE INTERFERENCE BLANKER UNIT (PIBU)

FOR FIGHTERS, HELICOPTERS, BOMBERS, AND TRANSPORT AIRCRAFT

The Programmable Interference Blanker Unit (PIBU) provides prioritized blanking of aircraft RF transmitters and receivers to prevent mutual interference and ensure reliable system performance in complex RF environments.

Flexible. Configurable. Mission-Ready.

Designed for flexibility and ease of integration, PIBU supports evolving mission requirements without hardware changes — reducing integration risk, logistics burden, and long-term support costs. A single PIBU unit can support different equipment setups and mission profiles through software configuration alone.

Simple Configuration & Integration

PIBU is fully configured by the operator using the PIBU Support Software, which:

- Runs on a standard laptop PC
- Interfaces via a standard Ethernet connection
- Enables rapid configuration in the lab or on-aircraft

Advanced Blanking Architecture

The PIBU offers a highly adaptable I/O structure and programmable blanking logic:

- User-configurable voltage levels and impedances
- Programmable blanking matrix (any input can map to any output)
- Support for single-ended, bi-directional, and differential channels
- Configurable pulse shaping for optimal RF perfromance

Advanced Blanking Architecture

The PIBU offers a highly adaptable I/O structure and programmable blanking logic:

- Programmable Internal Pulse Generators
- Support receiver look-through operations
- Storage of up to 16 selectable Blanker Configuration Sets
- Standard 5 V, 7 V, and 28 V single-ended blanker I/Os

Technical Design Overview

The PIBU uses a modular concept which allows for customization of available blanker I/Os to match platform requirments

Architecture

- Modular design with customizable blanker I/Os
- FPGA-based blanking matrix for low-latency performance

Maintainability

- Two-level maintenance concept
- Built-In Test (BIT)
- Discrete Go/No-Go failure indication

Configuration

- Ethernet-based loading
- Configurable on-aircraft or in laboratory environments

Input power Power	115 VAC/400 Hz or 28VDC		
consumption Dimensions	Max. 40W		
(l x w x h) Weight	173x238x118mm (6.8x9.37x4.65")		
General Interface	Max. 3.6 kg (8 lbs) 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 Load Impedance: 300 Ω to 2kΩ	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:

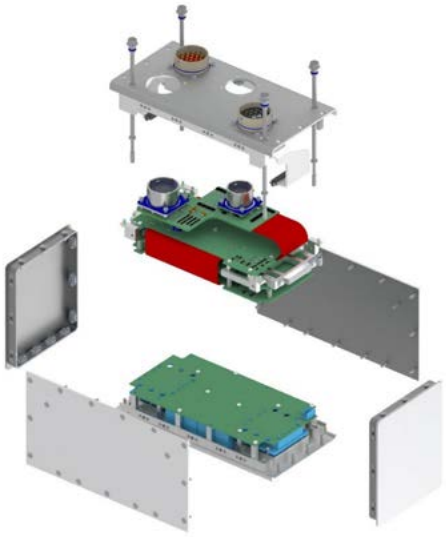
C-130J, MH-60R, AW/EH-101, F-5, Gulfstream G550 (not pictured), MQ-28 (not pictured)

MH-60R Seahawk

F-5 Tiger

C-130J

EH-101



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