Eon Instrumentation, Inc.
Since 1961

PIBU-102
Programmable Interference Blanker Unit
Eon P/N 19300-300

Technical Manual Overview

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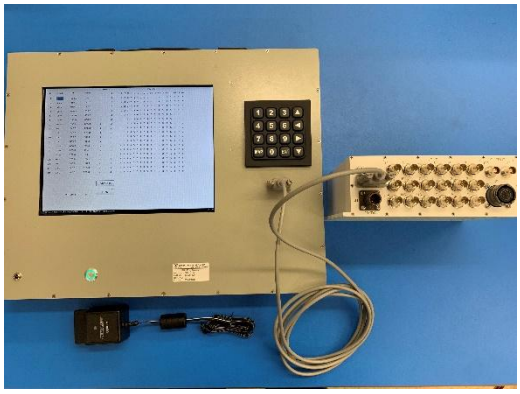
Programmable Interference Blanker Unit



Model Number: PIBU-102

P/N: 19300-300

General:

Eon provides a variety of programmable interference blankers using analog or computer generated blanking maps. The PIBU-102 employs the PIBU-PS, a rugged portable hand carried computer/display device that can be used in the laboratory or the flight line, to generate blanking maps.

PIBU-102 Operational Overview:

1.1 The PIBU-102 (Programmable Interference Blanker Unit-102) is designed to accept trigger pulses from various emitters and produce output blanking pulses with adjustable delay and pulse width. These output pulses are used to disable sensitive electronic equipment during the strong transmission periods produced by equipment such as radar and RF transmitters. The trigger voltage threshold inputs and output pulse delay and pulse width are user programmable variables. The values are established using the PIBU-PS described in section **1.3**.

1.2 Two Triax connectors J20, J21 can be used to output an RS-422 differential composite serial pulse stream. The composite output stream consists of blanking pulses from any combination of single ended trigger inputs. An additional eighteen composite blanking outputs are available on the multi-pin circular connector J22. Each blanking output consists of blanking pulses from any combination of single ended trigger inputs. The assignment of trigger inputs to blanking outputs is accomplished through the PIBU-PS described in section **1.3**.

1.3 The PIBU-102 blanking maps are created using the PIBU-PS. The PIBU-PS is a rugged portable hand carried computer/display device that can be used in the laboratory or the flight line. The trigger voltage threshold inputs and output pulse delay and pulse width values are easily entered on the PIBU-PS display screen using the PIBU-PS keypad. Mapping of the input trigger pulses to the composite outputs is accomplished through the display screen input/output matrix.

1.4 After blanking maps are created they are downloaded into the PIBU-102 using a three wire interconnecting cable. The download can occur before the unit is installed in the aircraft or at the flight line.

Applicable Documents:

Eon Doc# 19400-865 RevA Technical Manual, PIBU-PS P/N 19400-300 (LMT SDRL #038)

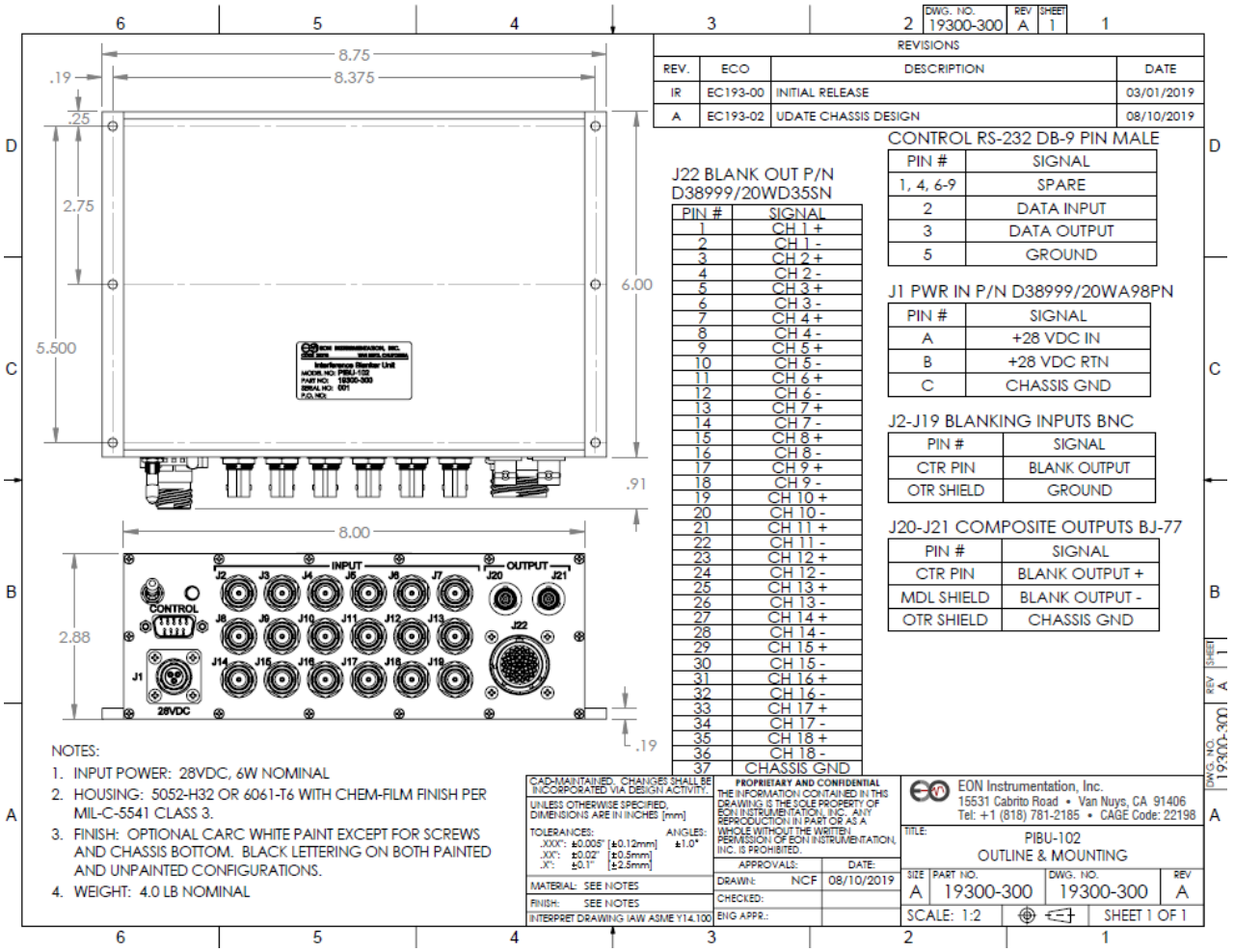
PIBU-102 Architecture;

The PIBU-102 contains two subassemblies – FPGA/Power Board and the I/O Board.

Configuration:

See the attached Outline and Mounting Drawing

Outline and Mounting Drawing:



PIBU-102 Outline and Mounting Drawing

Connector Specification:

Connector Definition			LRU Connector Specification	Mating Connector
Power In	J1	38999 series III	TE Connectivity / Deutsch D38999/20WA98PN *	TE Connectivity / Deutsch D38999/26WA98SN *
Control RS-232	J2	DB-9 pin male	TE Connectivity / Deutsch DB-9 pin male	Any standard configuration DB-9 pin female
Trigger In	J2-J19	BNC 75 ohm	TE Connectivity / Deutsch	TE Connectivity / Deutsch
Composite Out	J20 - J21	BJ-77	TE Connectivity / Deutsch	TE Connectivity / Deutsch
Blanking Out	J22	38999 series II	TE Connectivity / Deutsch D38999/20WD35SN *	TE Connectivity / Deutsch D38999/26WD35PN *
* "W" in D38999 part number denotes standard olive drab (cadmium) plating.				