



## BBG-ACP/ARP

## Radar Azimuth Converter



### Description

The BBG-ACP/ARP is a stand-alone converter which accepts the Azimuth Reference Signal from a radar system to compute the TRUE and RELATIVE Azimuth Reference Pulses and the Azimuth Change Pulses. These signals, combined with the radar video signal, enable display of the radar situation picture on many commercial and military radar consoles.

The BBG-ACP/ARP operates on 115 Volt 60 Hertz AC power. An internal power supply provides all power required to operate the converter.

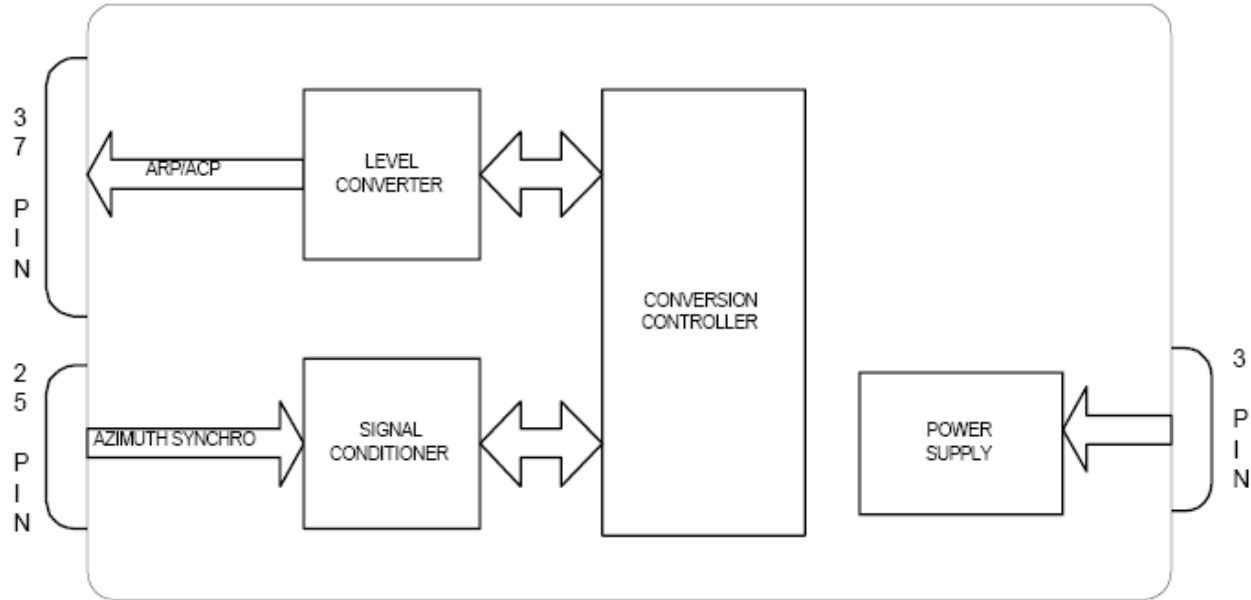
Input radar signals are connected to a 25 pin connector (DB25P) and ARP and ACP signals are available on a 37 pin (DC37S) connector.

### Features

- **STAND-ALONE ENCLOSURE**
- **INPUTS:**
  - **SYNCHRO AZIMUTH**
- **OUTPUTS:**
  - **AZIMUTH REFERENCE PULSE**
  - **AZIMUTH CHANGE PULSE**
- **OPERATES ON 115V 60 HZ AC POWER**
- **CUSTOM IMPLEMENTATIONS AVAILABLE UPON REQUEST**



**Chart**



**Technical Specifications**

<b>BBG-ACP/ARP SPECIFICATIONS</b>		
PARAMETER	VALUE	UNITS
POWER SUPPLY	5	Volts
	500	Milliamps
TEMPERATURE RANGE OPERATING STORAGE	0 to +50	°C
	-65 to +150	°C
PHYSICAL CHARACTERISTICS FULL SIZE IBM PC CARD	4.5 x 13.5 x 0.6	in.
	11.4 x 34.3 x 1.5	cm.

Table 1. BBG-ARP/ACP Specifications



## Overview

The BBG-ACP/ARP is a stand-alone converter which provides an interface between several commercial and military radar systems. The BBG-ACP/ARP accepts azimuth angle information from a radar system and generates one Azimuth Reference Pulse and 4096 Azimuth Change Pulses for each revolution of the radar sweep. The BBG-ACP/ARP operates from 115 Volt 60 Hertz AC power.

During power up, the BBG-ACP/ARP fully configures the interface for operation. Once configured, the converter performs synchro to digital conversion and provides the azimuth reference pulse and azimuth change pulses for each angle of the radar sweep.

## INPUT/OUTPUT

The BBG-ACP/ARP interface accepts the following inputs:

INPUT		
SYNCHRO AZIMUTH		
REFERENCE	115	Volts
	0 - 2000	Hertz
SYNCHRO	90	Volts
	0 - 2000	Hertz

The BBG-ACP/ARP interface produces the following outputs:

OUTPUT	
ARP	ACP
DIFFERENTIAL TTL	DIFFERENTIAL TTL
OPEN EMITTER	OPEN EMITTER



**CONNECTOR LIST****POWER CONNECTOR**

I/O CONNECTOR TYPE: MS3114E8-3P

CONNECTOR MATE: MS3116E8-3S

PIN NUM	SIGNAL
1	115V Line (INPUT)
2	115V Rtn (INPUT)
3	AC GND

**J1 CONNECTOR**

I/O CONNECTOR TYPE: DB25M

CONNECTOR MATE: DB25S

PIN NO	SIGNAL	PIN NO	SIGNAL
1	RL (INPUT)	14	N/C
2	RH (INPUT)	15	N/C
3	S1 (INPUT)	16	N/C
4	S2 (INPUT)	17	N/C
5	S3 (INPUT)	18	N/C
6	N/C	19	N/C
7	N/C	20	N/C
8	N/C	21	N/C
9	N/C	22	N/C
10	N/C	23	N/C
11	GND	24	N/C
12	N/C	25	N/C
13	CHASSIS GND		



**J2 CONNECTOR**

I/O CONNECTOR TYPE: DC37S

CONNECTOR MATE: DC37M

<b>PIN NUM</b>	<b>SIGNAL</b>	<b>PIN NO</b>	<b>SIGNAL</b>
1	N/C	20	ARP (OE OUTPUT)
2	N/C	21	ACP (OE OUTPUT)
3	N/C	22	N/C
4	N/C	23	N/C
5	N/C	24	N/C
6	N/C	25	N/C
7	N/C	26	N/C
8	N/C	27	N/C
9	N/C	28	N/C
10	N/C	29	N/C
11	N/C	30	N/C
12	N/C	31	N/C
13	N/C	32	N/C
14	N/C	33	N/C
15	N/C	34	N/C
16	N/C	35	ARP- (TTL OUTPUT)
17	ARP+ (TTL OUTPUT)	36	ACP- (TTL OUTPUT)
18	ACP+ (TTL OUTPUT)	37	GND
19	CHASSIS GND		

