



## BBG-SSC

## Synchro Signal Converter

### *Description*

The BBG-SSC (SSC) is a stand-alone network interface system that converts Ethernet data into a high-power synchro output. The SSC operates on 115 Volt, 400 Hz AC power and reference. The SSC accepts one channel of multicast ethernet data and outputs one channel 90 Volt, 400 Hz, 25 Volt Amps synchro data. Custom protocol inputs and synchro output configurations are available upon request.

The SSC is factory configurable to customer requirements for easy field installation.



### *Applications*

- Stabilized Glide Slope Indicator (SGSI)
- Radar Systems (antenna azimuth)
- Navigation Systems (gyrocompass, speedlog, course, pitch, and roll)
- Meteorology Instruments (wind speed and direction)
- Many Others

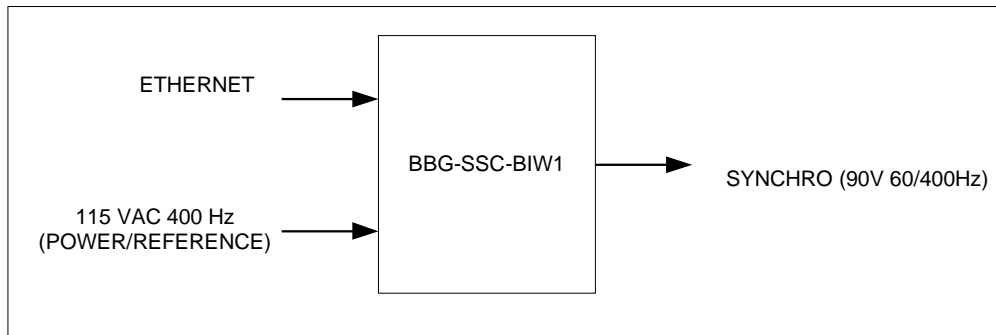
### *Features*

- Multicast Ethernet I/O
- 90V Synchro Output
- 25VA Synchro Power Output
- 400 Hertz Output (Optional 60 Hertz)
- Custom Ethernet protocol conversion available upon request

## **BBG Incorporated**

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*Chart**Technical Specifications*

Parameter	Value	Units
<b>Inputs</b>		
Power	115	Volts AC
	400	Hertz
	3.15	Amp
Ethernet	10BaseT/100BaseTX	
Message Protocol	NAVSSI	GFCS
<b>Outputs</b>		
	1 (high power) or 1 - 2 (low power)	
Reference	115	Volts
	400	Hertz
	1	Amp
Synchro	90	Volts
	60/400	Hertz
	25VA High Power 1.5@60Hz / 4.5VA@400Hz Low Power	VA
<b>Accuracy</b>	+/-4	arc minutes
<b>Temperature Range</b>		
Operating	-27.8 to +65.6	C°
Storage	-65 to +150	C°
<b>Dimensions</b>	17.5 H x 15 W x 7.4 D	In
	44.5 H x 38.1 W x 18.8 D	Cm



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## OVERVIEW

The BBG-SSC (SSC) is a stand-alone network interface system that converts Ethernet data into a high power synchro output. The SSC operates on 115 Volt, 60/400 Hz AC power and reference. The SSC receives ethernet data and outputs synchro data. Custom inputs and outputs are available upon request.

The outputs channel of the SSC are fault protected against over current and over temperature faults. In addition, the SSC provides internal kick circuitry for added control and protection on the 25VA outputs. Synchro data formats, power outputs, synchro and resolver voltages and frequencies are factory configured to user requirements. The synchro outputs are configured based on four internal output modules. The unit will support up to four 25VA modules and four two channel low power outputs. There is no restriction on the combination of low power and high power modules that can be used together in the product. The low power units support two channels using different reference frequencies for the synchro outputs.

The product has versions which are bulkhead mount and units which are rack mounted.

Examples of uses include: stabilized glide slope indicators (SGSI), radar systems, (antenna azimuth), navigation systems (gyrocompass, speedlog, course, pitch, and roll), industrial processes (position, velocity), and meteorology instruments (wind speed and direction).

## INPUTS/OUTPUTS

### Ethernet Input

The SSC provides one channel of a network based 10BaseT/100BaseTX ethernet protocol input. The input is factory configured to accept specific message structures as provided by the customer.

### Synchro Interface

Synchro Output:

The output is factory configured based on customer's requirements.

### Power Interface

Power Input:

Power input 60/400Hz



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## Reference Interface

Power/Reference Input:

Power and synchro reference inputs are factory configured based on customer's requirements.

Reference Output:

synchro reference inputs are factory configured based on customer's requirements.

## CONNECTOR LIST

Inputs and outputs are available on circular MIL connectors provided with the BBG-SSC. Inputs and outputs connector types are listed below:

### AC POWER

I/O CONNECTOR TYPE: MS3474L14-04P

CONNECTOR MATE: MS3475L14-04S

BACKSHELL: STRAIGHT – M85049/10-116N, OPTIONAL: 90 DEGREE - M85049/8-9N, or 45 DEGREE - M85049/6-9N

Signal	Pin Number
ACN 115V AC 400 Hz NEUTRAL (FUSED INPUT) (3.15 Amp)	A
ACL 115V AC 400 Hz LINE (FUSED INPUT) (3.15 Amp)	B
Chassis Ground (E1)	C
Spare	D



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**SYNCHRO**

I/O CONNECTOR TYPE: MS3474L14-05P

CONNECTOR MATE: MS3475L14-05S

BACKSHELL: STRAIGHT – M85049/10-19N, OPTIONAL: 90 DEGREE - M85049/8-10N, or 45 DEGREE - M85049/6-50N

**ETHERNET**

I/O CONNECTOR TYPE: JTRJ45F-16NJCFFPS

CONNECTOR MATE: JTRJ45-16NXL

<b>Signal</b>	<b>Pin</b>
TX+ (OUTPUT)	1
TX- (OUTPUT)	2
RX+ (INPUT)	3
Terminated	4
Terminated	5
RX- Serial (INPUT)	6
Terminated	7
Terminated	8
Shield	CGND

\* Terminated per TIA/EIA -T568B



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