

The SIB85 SATCOM Audio Management System provides crew members with an interphone link and enables each one to operate the following radio facilities :

- Radio Communication (Including SATCOM)
  - Interphone
  - Radio navigation
  - Public Address
- Emergency Warning System



### SYSTEM COMPONENTS

The SIB85 SATCOM derives from the TEAM SIB73 system and consists of :

- Up to 5 Audio Control Panels (ACP 2788AF01),
- 1 Audio Management Unit (AMU3514),
- 1 Selcal Code Selection Panel (BC2065),
- 2 Speakers (HP3520).

### USER AIRCRAFT

AIRBUS INDUSTRIE has specified this system for the A330/340 aircraft equipped with «VOICE SATCOM» function, i.e access to SATCOM function from the cockpit.

### CHARACTERISTICS

This new system incorporates :

- SELCAL,
- Built-in Test Equipment (BITE),
- Cockpit speaker amplification,
- SATCOM interface function.

### PURPOSE AND USE

The SIB85 SATCOM system permits selection of :

- Up to 7 communication channels with volume control (Including 2 SATCOM channels)
- Up to 6 navigation channels with volume control,
- 1 Public Adress amplifier,
- 1 Intercom channel with volume control,
- 1 Cabin channel with volume control and monitors 12 warning inputs.

Each Audio Control Panel transmits the status of its selector switches to the Audio Management Unit via ARINC 429 buses. The status of the selector switches and SELCAL alerts are displayed.

No audio signal processing takes place within the ACP, all audio signals being processed within the AMU.

The Audio management Unit incorporates up to 5 independent audio signal processing. Since they are identical and modular, each processing board can be exchanged or easily replaced.

An optional SELCAL Code Selection Panel (BC2065) allows to input the code assigned to each airplane.

### RELIABILITY AND SAFETY

Operational safety is ensured by physically and electronically independent audio signal processors, in particular, every audio processor has its own power supply.

In the event of a processor failure, an emergency switch permits a serviceable processor selection by the Pilot or Copilot.

In the event of an Audio Management Unit failure, the system automatically reverts to a single radio operating mode.

The SELCAL function is performed in the Audio Management Unit.

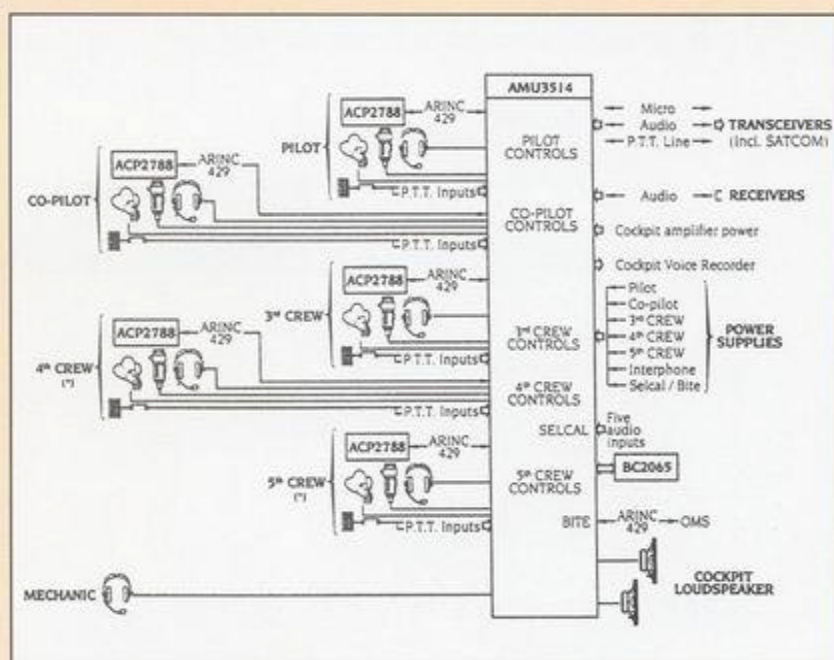
Calls (SELCAL) and SATCOM are displayed on the front panel of the ACP by flashing push-buttons corresponding to the transmission, channels linked to the calls received.

The incorporation of the Built-in Test Equipment (BITE) indicates which system has failed.

Provision of BITE hardware and software makes failure detection and identification possible and enables an exchange of maintenance data with an ARINC 604 flight maintenance system. By using a cockpit amplifier, the speakers will pick up warning signals and also audio signals coming from the processing channels.

The system is pin programmable and can be programmed for example to identify the presence of :

- VHF3
- HF2
- CVR in FAA or CAA mode
- SDU
- SATCOM function



**BLOCK DIAGRAM SIB85**

### ENVIRONMENTAL

DO160C standards categories A1 (ACP), A2 (AMU), C, A, B, X, X, X, X, X, A, A, A, A, Z, V, Z, M, X, X.

### TEMPERATURE

Operation : -15°C +70°C  
 Storage : -40°C +85°C

### STANDARD

The system complies with the following standards :

- DO160C
- DO170
- DO178A
- ARINC 538B
- ARINC 604
- ARINC 429
- ARINC 600
- ARINC 714 for Selcal Function.

### GENERAL CHARACTERISTICS

		ACP2788 9 U BNAE	AMU3514 4 MCU ARINC 600	BC2065 4 U BNAE
Height	mm	85	194	37,3
Width	mm	146	124	146
Depth	mm	140	368	76
Weight	kg	1,1	6	0,3
Power consumption	W	1,4	60	-
MTBF	F-H	10,000	6,000	50,000
Power supply	V	18-32	18-32	-

### ELECTRICAL CHARACTERISTICS

Microphone input	250 mV / 150 Ohms
Audio output	5.5 V / 600 Ohms
Audio input receiver	5.5 V / 600 Ohms
Bandwidth	300-6.000 Hz ± 3 dB
Distorsion	< 1%
Signal/noise ratio	< 90 dB
Crosstalk	< 80 dB at 1.000 Hz
Voice only filter attenuation	< 32 dB at 1.000 Hz and 1.020 Hz

### TEAM