

QUANTUM TENOR VOIP GATEWAY

PHONE LINES

ETHERNET

CISCO 3810

PHONE LINES

ETHERNET

POINT LOBOS SYSTEM

The diagram illustrates the Point Lobos system architecture, showing the following components and their interconnections:

- Antennas:**
 - TO/FROM DYNAIR SWITCHER:** Connected to **NTSC IN** and **NTSC OUT**.
 - 5 MHZ LOW PASS FILTER:** Connected to the **TO/FROM DYNAIR SWITCHER**.
 - UHF OMNI ANTENNA:** Connected to **RF IN/OUT**.
 - GPS ANT ANTENNA:** Connected to the **TRIMBLE DL4000 DGPS RECEIVER**.
- Modems and Encoders:**
 - RF NETWORKS ETHERNET MODEM:** Receives **RF IN/OUT** and connects to **ETHERNET SHIP DOMAIN** via **10 BASE T**.
 - MICROWAVE RADIO MIII AUDIO AND BASEBAND VIDEO ENCODER:** Receives **BASEBAND OUT (DATA)** and **BASE BAND IN (VIDEO+DATA)**. It also receives **BASEBAND AUDIO** and outputs **NTSC OUT**.
- Networking and Gateway:**
 - CISCO ROUTER:** Connects the **ETHERNET SHIP DOMAIN** to the **ETHERNET** and the **QUINTUM TENOR VOIP GATEWAY**.
 - QUINTUM TENOR VOIP GATEWAY:** Connects to the **ETHERNET** and provides multiple lines for **TO SHIP KSU**, **PHONE LINES**, and **ETHERNET SHIP DOMAIN**.
- Antenna Control:**
 - SEATEL ANTENNA CONTROLLER POINTS AND STABILIZES ANTENNA:** Controls the **MICROWAVE TX/RX IN DOME**.
- Data and Communication:**
 - MOTOROLA RADIO:** Receives **RF IN/OUT** and connects to **AUDIO IN/OUT** and **PACOM TNC (MODEM)**.
 - PACOM TNC (MODEM):** Connects to the **INTEL 8051 uP** and the **TRIMBLE DL4000 DGPS RECEIVER** via **232 SERIAL**.
 - INTEL 8051 uP:** Receives **SERIAL OUT** and outputs **232 SERIAL** to the **TRIMBLE DL4000 DGPS RECEIVER**.
 - TRIMBLE DL4000 DGPS RECEIVER:** Outputs **NMEA0193 DATA OUT** and receives **RTCM104 IN** from the **PACOM TNC (MODEM)**.

LISTENS TO NMEA 0183 POSITION AND STRIPS OUT LAT/LONG AND XMITS POS FOR "WHERE IS POINT LOBOS"

W/F SYSTEM

The diagram illustrates the W/F SYSTEM architecture, showing the flow of data and signals between various components. The system is divided into two main sections: the top section for video and data processing, and the bottom section for navigation and positioning.

Top Section (Video and Data Processing):

- TO/FROM DYNAIR SWITCHER:** Connected to the system via NTSC IN and NTSC OUT lines.
- NTSC OUT:** Connected to a 5 MHz LOW PASS FILTER.
- GRAMM PATTEN or DataQ ENCODES/ DECODES T1 OVER VIDEO:** This block receives NTSC IN and outputs NTSC OUT. It also receives BASEBAND OUT (DATA) and outputs BASE BAND IN (VIDEO+DATA).
- T1 FRAMED DATA, 4 WIRE BALANCED:** This block receives BASE BAND IN (VIDEO+DATA) and outputs T1 FRAMED DATA, 4 WIRE BALANCED to the CISCO 3810.
- CISCO 3810:** A network device that connects to the CISCO ROUTER via ETHERNET, PHONE LINES, and TO SHIP KSU.
- CISCO ROUTER:** A network device that connects to the CISCO 3810 via ETHERNET and to the ETHERNET SHIP DOMAIN via ETHERNET SHIP DOMAIN.
- MICROWAVE RADIO MIII AUDIO AND BASEBAND VIDEO ENCODER:** This block receives BASEBAND AUDIO and outputs BASEBAND OUT (DATA) to the GRAMM PATTEN or DataQ ENCODES/ DECODES T1 OVER VIDEO block. It also receives BASE BAND IN (VIDEO+DATA) and outputs T1 FRAMED DATA, 4 WIRE BALANCED to the CISCO 3810.
- MICROWAVE TX/RX IN DOME:** This block receives BASEBAND OUT (DATA) and outputs BASE BAND IN (VIDEO+DATA) to the MICROWAVE RADIO MIII AUDIO AND BASEBAND VIDEO ENCODER.
- SEATEL ANTENNA CONTROLLER POINTS AND STABILIZES ANTENNA:** This block receives BASEBAND OUT (DATA) and outputs BASE BAND IN (VIDEO+DATA) to the MICROWAVE RADIO MIII AUDIO AND BASEBAND VIDEO ENCODER.

Bottom Section (Navigation and Positioning):

- UHF OMNI ANTENNA:** Connected to the MOTOROLA RADIO via RF IN/OUT.
- MOTOROLA RADIO:** A radio device that connects to the FACOM TNC (MODEM) via AUDIO IN/OUT.
- FACOM TNC (MODEM):** A modem device that connects to the WFNVAPROC via SERIAL OUT.
- GPS ANT ANTENNA:** Connected to the TRIMBLE DL4000 DGPS RECEIVER via GPS ANT ANTENNA.
- TRIMBLE DL4000 DGPS RECEIVER:** A GPS receiver device that outputs RTCM104 IN to the FACOM TNC (MODEM) and 232 SERIAL to the WFNVAPROC.
- WFNVAPROC:** A processing unit that receives SERIAL OUT from the FACOM TNC (MODEM) and outputs 232 SERIAL to the TRIMBLE DL4000 DGPS RECEIVER. It also outputs NMEA0193 DATA OUT to the TRIMBLE DL4000 DGPS RECEIVER.

Legend:

- LISTENS TO NMEA 0183 POSITION AND STRIPS OUT LAT/LONG AND XMTS POS FOR "WHERE IS W/F"

Update: UPDATE 6/20/06

W/F SYSTEM

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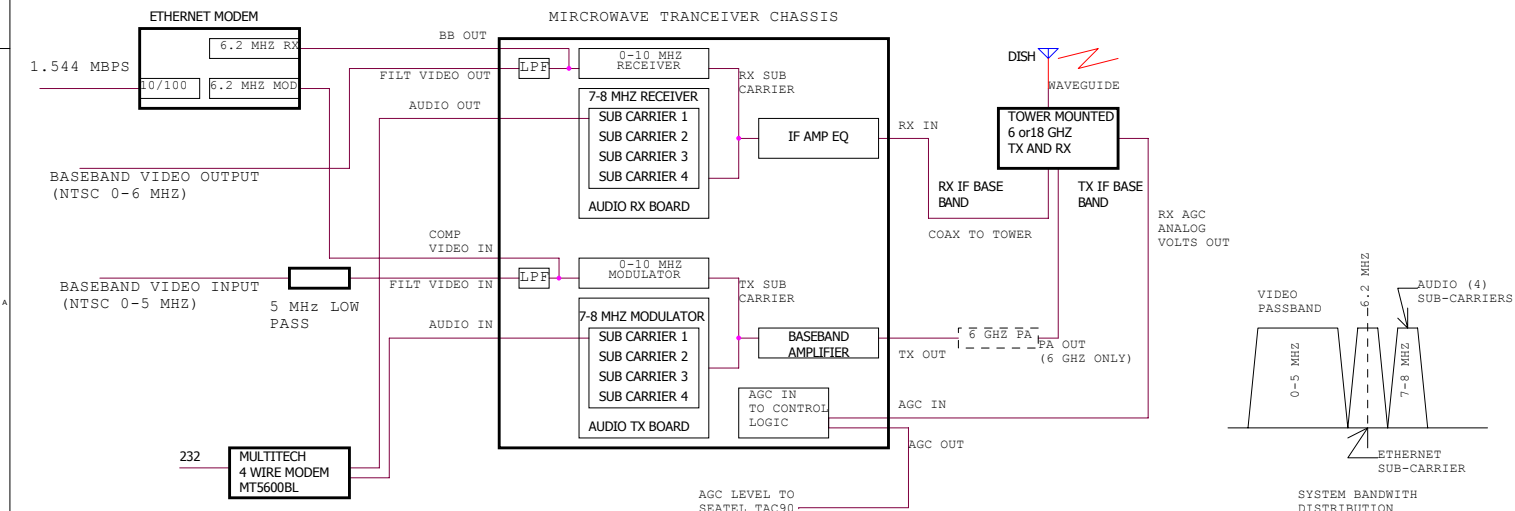
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Legend:

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Title			
MBARI MICROWAVE SYSTEM SYSTEM BLOCK DAIGRAM			
Size D	Document Number <Doc>	Rev <Rev>	Code
Date:	Tuesday, June 20, 2006	Sheet	1 of 1