

The background of the entire page is a close-up, slightly blurred image of a professional radio control panel. The panel is dark green or black and features a grid of numerous buttons and knobs. Many buttons are labeled with technical abbreviations such as 'VHF2', 'UHF', '800', 'SAT', 'MUSC', 'LOJK', 'AUX', 'DME', 'MKR', 'NAV1', 'NAV2', 'EMERG', 'ICS', 'VOX', 'NORMAL', 'TX', 'MVOL', 'COM1', 'COM2', 'TAC1', 'TAC2', 'TAC3', 'TAC4', 'ISO', 'ISO CALL', 'MULT', 'MKR DME', 'ICS VOL', and 'PUSH ENTER'. Some buttons have small green indicator lights. The panel also has several rotary knobs and a few larger buttons with symbols like a microphone or a speaker. A diagonal yellow line cuts across the upper left portion of the image, separating the white header area from the main content area.

P139-HD DIGITAL AUDIO SYSTEM

CUSTOMIZE YOUR COMMUNICATION SYSTEM

TRUSTED & VERSATILE

P139-HD DIGITAL AUDIO SYSTEM



The P139-HD Digital Audio System is the industry's most **adaptable** and **efficient** communication solution. Trusted by top law enforcement and mission/utility operators worldwide.

P139-HD Digital Audio System

CONFIGURED TO YOUR UNIQUE MISSION REQUIREMENTS



Multicast and Simulcast

Retransmit incoming audio on any mission radio. Select any radio combination.



Bi-Directional Radio Relay

With no additional components.



Easy Programming of Levels, Priorities, or Alert tones

Using built-in web-based configuration interface.



Bluetooth® audio (for select models)

Connect a Bluetooth compatible device for call and audio streaming.



Multiple ICS Zones

Isolate, call and private ICS functions in a single router.



Isolation Relays

Internal emergency Com 1 and Com 2 isolation relays with ICS between Pilot and Co-Pilot in emergency mode.



Custom Functionality

Programming Customer specific configurations can be installed for specific mission requirements.



Custom Engraving

Control panels can be custom engraved at no additional charge.



Multi-Axis Mounting

Audio Router has multi-axis mounting points for any application.



Low Impedance Capable

Low impedance router option support 5Ω/8Ω headsets.



Excellent Sound Quality

Full 48 KHz sampling for high quality audio.



Selected Positional Audio (SPA)

Select and position priority audio to increase operator focus.



NVIS-Compatible Lighting

Included at no additional charge.



Removable Memory Card

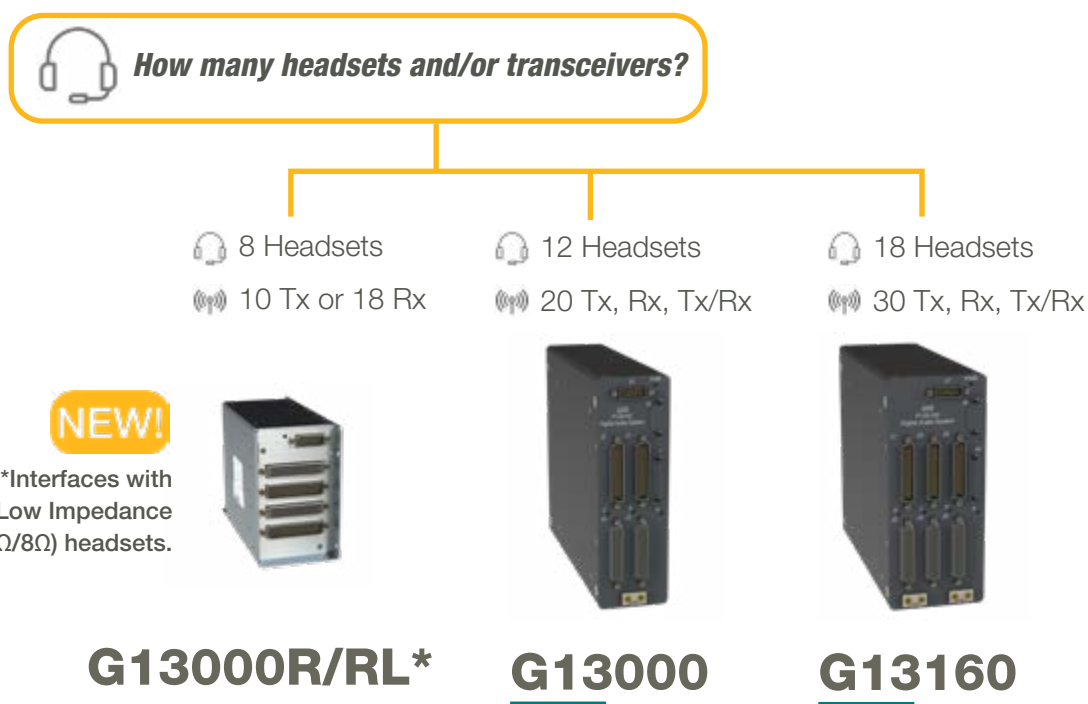
For easy system and firmware updates.

Configure Your System

The P139-HD Digital Audio System is a modular and scalable audio platform which provides centralized control and routing for all aircraft audio signals. The platform architecture provides a single integrated solution for all audio to or from transceivers, receivers, headsets, recorders, and other audio sources including intercom audio routing and talk groups.

Audio Router Options

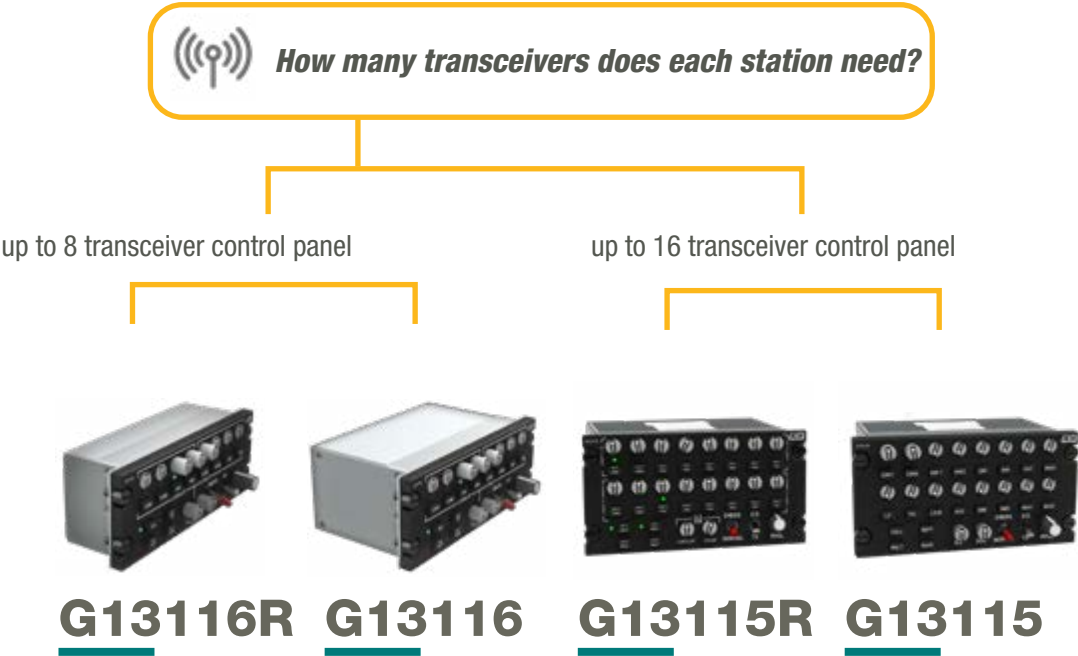
The Audio Router routes and mixes all aircraft audio from all sources controlled by the attached Control Panels and dictated by the installed configuration.



Headset Ports	8	12	18
Radio Ports (Any audio device that may be connected)	10 Tx / 18 Rx	20	30
Extra keylines for special functions or operation of other equipment	12	10	15
Internal 25W speaker driver for cabin briefings	✓		
Eight programmable alert tone generators with priority	✓	✓	✓
Selected Positional Audio (SPA)	✓	✓	✓
Dimensions (H x L x W)	4.96 x 6.50 x 3.19 in [126 x 165.1 x 81 mm]	8.5 x 10.00 x 2.63 in [215.9 x 254 x 66.7 mm]	8.5 x 10.00 x 3.56 in [215.9 x 254 x 90.5 mm]
Weight	3.0 lb [1.40 kg]	5.0 lb [2.27 kg]	5.3 lb [2.40 kg]

Control Panel Options

The Audio System may be configured to use any number of different control panel types, each specifically configured for a customer’s needs.



Example Configurations

Customer specific configurations can be installed for specific mission requirements.

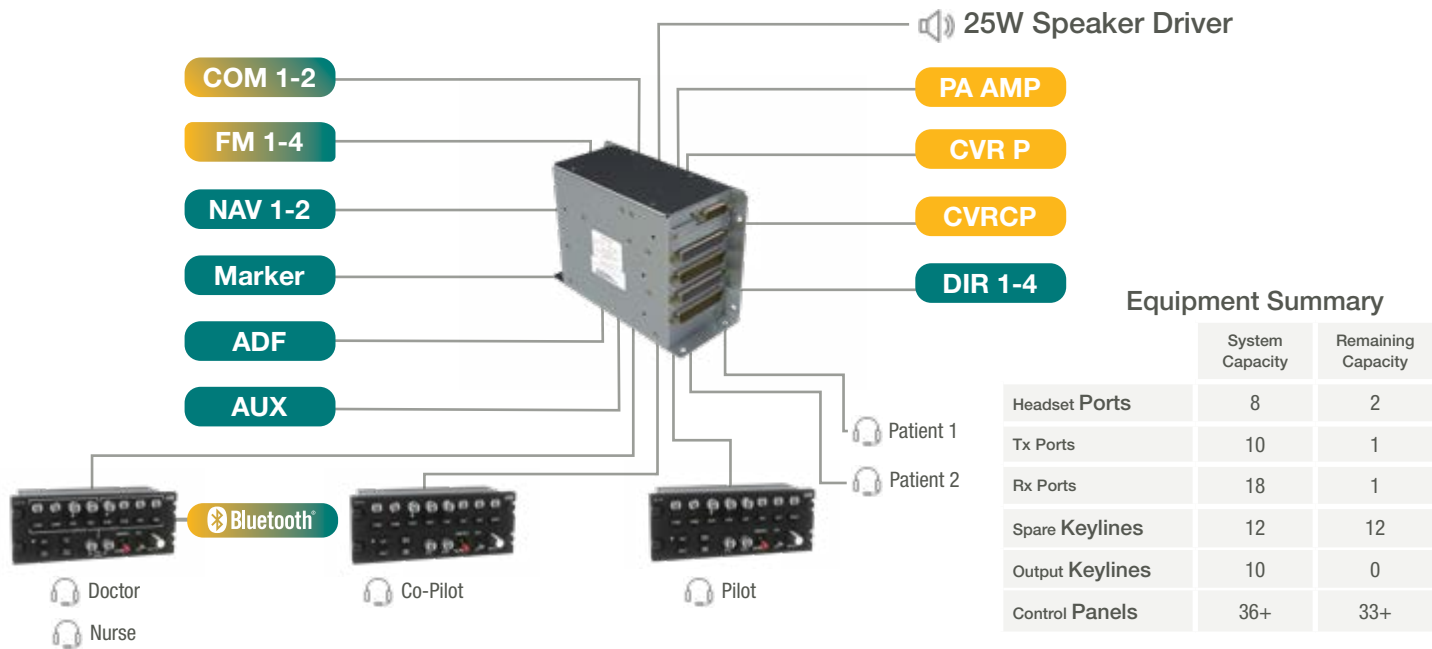
Tx

Rx

Rx/Tx

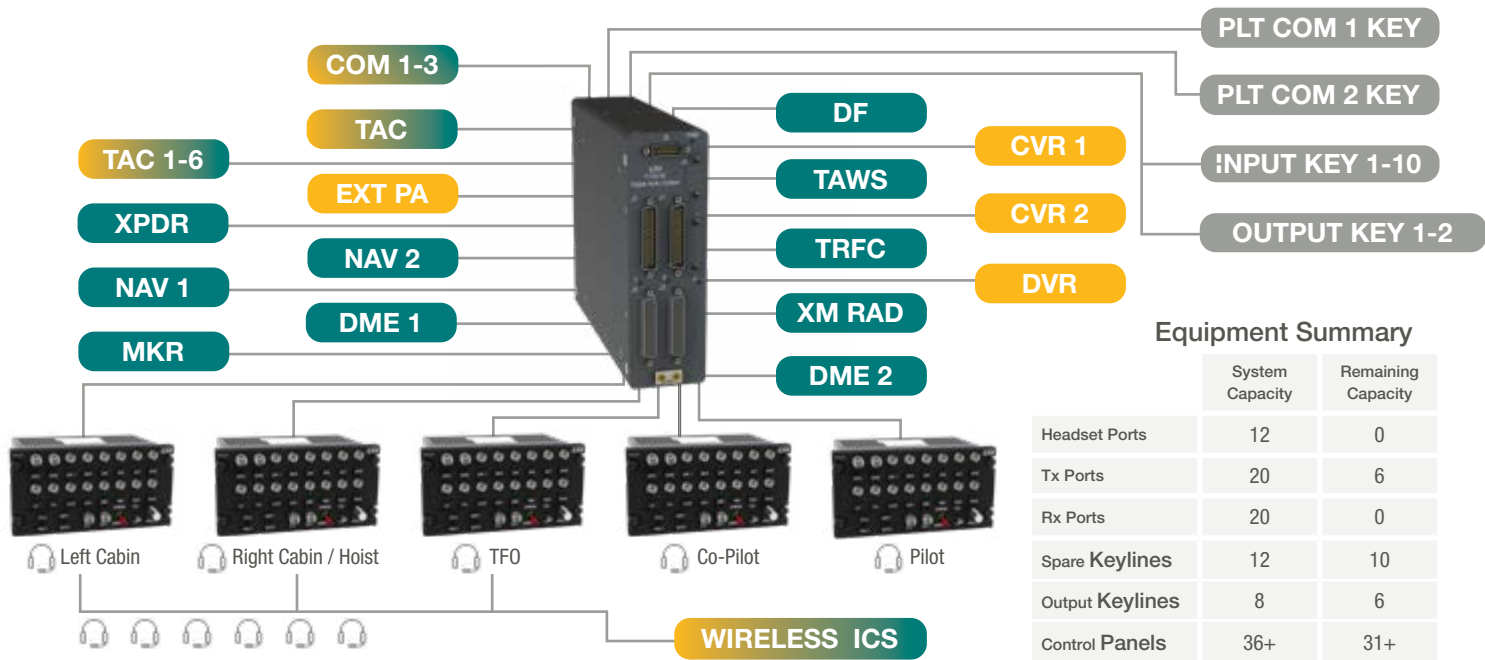
Aerial Emergency Medical Services

Aircraft: Medium Helicopter Audio Router: G13000R Control Panels: 3 - G13116R with Bluetooth®



Aerial Law Enforcement

Aircraft: Medium Utility Helicopter Audio Router: G13000 Control Panels: 5 - G13115

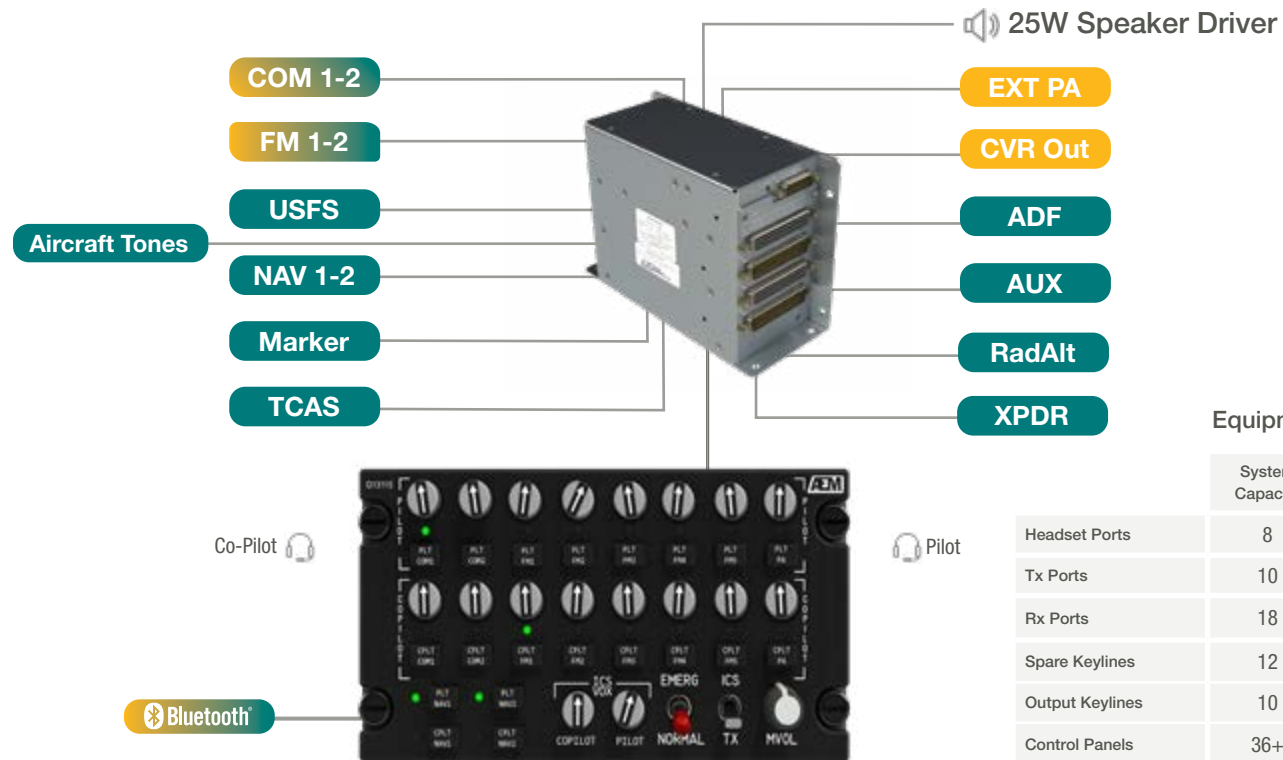


Aerial Firefighting (Small/Medium)

Aircraft: Light/Medium Helicopter

Audio Router: G13000R

Control Panels: 1 - G13115R with Bluetooth®



Equipment Summary

	System Capacity	Remaining Capacity
Headset Ports	8	6
Tx Ports	10	2
Rx Ports	18	3
Spare Keylines	12	12
Output Keylines	10	5
Control Panels	36+	35+

System Setup and Configuration

Built-in web-based interface allows user configuration of each enabled radio and headset port.

- ✓ **Plug and Play**
No custom cable, no custom software
- ✓ **Fine Tune Settings**
Audio volume levels, alert tones and panel dimmers
- ✓ **Save and Restore**
Settings can be saved with comments and restored



Environmental Qualifications

DO-160F ENVIRONMENTAL CAT. D1 C4XXBAU2(F)(F1)XXXXXXZBXXBBZCTTMA3D3XXXXXXAX

DO-160F ENV. CAT.	SECTION	CATEGORY	DESCRIPTION
Alt	4.0	C4	Equipment tested to Category C4 (35,000ft, non-pressurized, non-controlled temperature)
Low Temperature	4.0	D1	Operating Temp: -20°C. Short-Time Operating: -40°C. Ground Survival: -55°C
High Temperature	4.0	D1	Operating Temp: +55°C. Short-Time Operating: +70°C. Ground Survival: +85°C
Loss of Cooling	4.5.4	Z	No Cooling Required
Temp. Variation	5.0	B	5°C minimum per minute
Humidity	6.0	A	Equipment tested to Category A
Shock	7.0	A	6G in any direction
Vibration	8.0	U2	Equipment tested to Category U2 (Robust Vibration Test)
Mag Effect	15.0	Z	Less than 0.3m
Power Input	16.0	B	Equipment tested to Category B
Voltage Spike	17.0	B	Equipment tested to Category B
Conducted Audio	18.0	B	Equipment tested to Category B
Induced Signal Susceptibility	19.0	ZC	Equipment tested to Category ZC
RF Susceptibility	20.0	TT	Equipment tested to Category TT
RF Emissions	21.0	M	Equipment tested to Category M
Lightning Induced	22.0	A3D3	Equipment tested to Category A3D3
ESD	25.0	A	Equipment tested to Category A

System Specifications

ELECTRICAL CHARACTERISTICS

Max. Input Voltage		32 VDC
Min. Input Voltage		14 VDC
Max. Input Current		4 A
Min. Input Current		1.2 A
Gnet Voltage	Supplied by G13000	24 VDC
Max. Gnet Current	Per Gnet bus	0.5 A
Max. Dimmer voltage	DC, AC or PWM input	28 V
Dimmer Buses (Independent)		2 EACH

AUDIO CHARACTERISTICS

Max. Microphone Input	MIC GAIN set to minimum	4.5 dBV
Microphone Input Impedance		500 Ω
Max. Earphone Output	EAR GAIN at maximum	13.5 dBV
Expected Earphone Impedance		150 or 600 Ω
Max. Receive Input	RX GAIN set to minimum	14.0 dBV
Receive Input Impedance		600 Ω
Max. Transmit Output	TX GAIN at maximum	6.0 dBV
Expected Transmit Impedance		150 Ω

KEYLINE CHARACTERISTICS

Headset PTT Key Voltage	Keyline must be pulled below this value to key	0.5 V
Max. Radio Keyline Voltage	Pull-up voltage provided by radio	28 V
Max. Radio Keyline Current		1 A
Max. Separate ICS Zones	No separate router required	9 EACH

Certification

CERTIFICATION

FAA STC	AS350 B, BA, B1, B2, B3, C, D, D1
SR00521SE	AS355 E, F, F1, F2, N Bell 206 A, A1, B, L, L1, L3, L4, 407 EC 135, P1, T1, P2, T2, P2+, T2+
TCCA STC	EC135 P1, T1, P2, T2, P2+, T2+
SH09-17	AS350 B, BA, B1, B2, B3, D AS355 E, F, F1, F2, N Bell 206 A, A1, B, L, L1, L3, L4, 407
EASA STC	AS350 B, BA, B1, B2, B3, D
10036806	AS355 E, F, F1, F2 EC135 P1, T1, P2, T2, P2+, T2+ Bell 206 A, B, L, L1, L3, L4, 407
ANAC STC	AS350 B, BA, B1, B2, B3
2007506-30	AS355 F, F1, F2, N Bell 206 A, B, L1, L3, L4, 407 EC135 P1, T1, P2, T2, P2+, T2+
FAA STC	MBB BK 117 A-1, A-3, A-4, B-1, B-2, C-1, C-2, D-2
SR02270SE	Bell 204 B, 205 A, 205 A-1, 205 B, 212, 412, 412 EP, 412 CF Bell 214 B, B1, ST
TCCA STC	MBB BK 117 A-1, A-3, A-4, B-1, B-2, C-1, C-2
SH14-33	Bell 204 B, 205 A, 205 A-1, 205 B, 212, 412, 412 EP, 412 CF Bell 214 B, B1, ST
EASA STC	MBB BK 117 A-1, A-3, A-4, B-1, C-1, C-2
10056456	Bell 204 B, 205 A-1, 212, 412, 412 SP, 214 ST
ANAC STC	MBB BK 117 A-3, A-4, B-1, B-2, C-1, C-2
2014511-01	Bell 212, 412, 412 EP, 204 B, 205 A, 205 A-1, 214 B, 214 B-1
JCAB STC	Bell 412EP
STC-460-TYO	

Non-STC Airframe Installations

ROTARY WING	FIXED WING
Bell 429	Airvan
Bell 505	Cessna Caravan
Bell UH-1	Cessna Citation
Eagle Single	Challenger
EC130	E-9A
H155	King Air
Hughes 369FF	PC12
K-MAX	Q200
MD500	Q300
R44	
S-76	
Super Puma	
UH-60	



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