

721S V/UHF FAMILY OF RADIOS

POWER AND  
PERFORMANCE  
ON COMMAND

# RELIABLE AND FLEXIBLE PERFORMANCE

Intuitive, adaptable, reliable and clear. These are your requirements for a communications system, whether you're operating at a fixed-site or a mobile environment such as a ground vehicle or ship. Collins has your communications covered with capability-rich systems that can meet all your requirements and more.

Collins' 721S family of V/UHF radios, made up of the 721S Legacy and 721S Blade, offer superior receiver quality, voice over IP, Ethernet control, common radio architecture, modular design and high mean time between failures. For the clearest communications in transmit and receive modes, 721S radios include our Clarity™ noise reduction software. It increases audio quality link margin and range by reducing non-syllabic background noise such as heating/ cooling system noise, street and office sounds, and signal interference from co-location pollution are all filtered out of your communications channel.



721S Legacy V/UHF radio

## MILITARY COMMAND AND CONTROL – 721S LEGACY

Our 721S Legacy V/UHF radio transceiver delivers superior connectivity in a tailorable solution for stand-alone or networked transceivers. It is a direct, drop-in replacement for your legacy GRC-171 and GRC-211 systems. Another fixed-site option is our 721S Blade radio system which offers modular flexibility in a small form factor that can scale to your site and capability requirements. Both radios offer optional Electronic Protection Measures with HAVE QUICK I/II and SATURN waveforms.



## CIVIL/MILITARY DEPLOYABLE – 721S BLADE

For deployable or flyaway operation in a strict cosite environment, the 721S Blade V/UHF Radio is your choice. It offers the smallest footprint for size, weight and power usage in the dual-band V/UHF market.



721S Blade V/UHF radio



# SYSTEMS THAT FLEX

Maybe you need a particular waveform compatibility, or communications equipment light and small and tailorable to your unique configuration. No matter what you're looking for in a fixed-site or transportable communications system, talk with us. Our transceivers and systems are designed with the flexibility to deliver reliable ground-air communications across a broad range of usage types.

## THE RIGHT DECISION

Choosing the best radio system for your operations begins with a few simple questions.

- Do you need a fixed-site or transportable system?
- Do you need 10 W, 50 W or 100 W carrier RF power?
- Is Havequick or SATURN needed?

Many factors play into selecting the best 7215 radio to meet your needs.







## FEATURES, SIDE-BY-SIDE

The 721S Legacy and 721S Blade radio systems offer a rich list of features – some that are common to both systems and some that are distinctive to each. With the tables on the next few pages, it's easy to see which radio system provides the features you want.

For a more in-depth look at the features for any of our V/UHF radio systems, contact your Collins representative or visit us at [collinsaerospace.com](http://collinsaerospace.com).

# 721S LEGACY V/UHF RADIO

The 721S Legacy V/UHF radio provides a trusted and tailorable solution for standalone or networked transceivers.



Receiver-transmitter	721S-1C	721S-2C	721S-3C	721S-4C
Part number	270-3148-013	270-3148-023	270-3148-033	270-3148-043
Receive frequencies (MHz)	108-173.975	225-399.975	108-399.975	30-511.975
Transmit frequencies (MHz)	118-173.975	225-399.975	118-173.975 225-511.975	30-87.975 118-173.975 225-511.975
Electronic protection measures	No	Optional HAVE QUICK and SATURN	Optional HAVE QUICK and SATURN	Optional HAVE QUICK and SATURN
Tuning increment (kHz)	100-240 @ 9.2 A max (auto switching)	100-240 @ 9.2 A max (auto switching)	100-240 @ 9.2 A max (auto switching)	100-240 @ 9.2 A max (auto switching)
Transmit power (Watts)	30 AM carrier 109 AM PEP 100 FM	30 AM carrier 109 AM PEP 100 FM	30 AM carrier 109 AM PEP 100 FM	30 <sup>1</sup> AM carrier 109 AM PEP 100 <sup>1</sup> FM
50 W AM carrier transmit power	Optional	Optional	Optional	Optional
AC input rating (VAC)	100-240 @ 9.2 A max (auto switching)	100-240 @ 9.2 A max (auto switching)	100-240 @ 9.2 A max (auto switching)	100-240 @ 9.2 A max (auto switching)
MaxAC power consumption (Watts)	80 RX 455 TX AM 425 TX FM	80 RX 455 TX AM 425 TX FM	80 RX 455 TX AM 425 TX FM	80 RX 455 TX AM 425 TX FM
DC input (VDC)	20-30 @ 20 A max	20-30 @ 20 A max	20-30 @ 20 A max	20-30 @ 20 A max
Duty cycle	100%	100%	100%	100%
Weight (lbs./kg)	37/16.8	37/16.8	37/16.8	37/16.8
Dimensions: H x D x W (including connectors)	7" x 21.3" x 19" 178 mm x 541 mm x 483 mm	7" x 21.3" x 19" 178 mm x 541 mm x 483 mm	7" x 21.3" x 19" 178 mm x 541 mm x 483 mm	7" x 21.3" x 19" 178 mm x 541 mm x 483 mm
70 MHz IF port	Yes, may be used with ext. modems (VHSM-5000)	Yes, may be used with ext. modems (VHSM-5000)	Yes, may be used with ext. modems (VHSM-5000)	Yes, may be used with ext. modems (VHSM-5000)
Ethernet	10/100/1000	10/100/1000	10/100/1000	10/100/1000
Radio control	Internal RCU-720 External RCU-720 Ethernet Serial port	Internal RCU-720 External RCU-720 Ethernet Serial port	Internal RCU-720 External RCU-720 Ethernet Serial port	Internal RCU-720 External RCU-720 Ethernet Serial port

Note 1: Transmit power is reduced by 3 dB from 30-88 MHz and 400-512 MHz





# 721S BLADE V/UHF RADIO

The 721S Blade offers a highly flexible, portable and space efficient solution for primary, emergency and backup AM/FM V/UHF ground-air communication.



Receiver-transmitter	RT-4110	RT-4150	RT-5512
Part number	270-3186-070	270-3186-072	270-3186-073
Receive frequencies (MHz)	30-511.975	30-511.975	30-511.975
Receive frequencies (MHz)	118-173.975 225-399.975	118-173.975 225-399.975	30-87.975 118-173.975 225-511.975
Electronic protection measures	No	Optional HAVE QUICK and SATURN	Optional HAVE QUICK and SATURN
Tuning increment (kHz)	12.5/25 FM 8.33/25 AM	12.5/25 FM 8.33/25 AM	12.5/25 FM 8.33/25 AM
Transmit power (Watts)	30 AM carrier 36 AM PEP 20 FM	50 AM carrier 182 AM PEP 100 FM	50 <sup>1</sup> AM carrier 182 AM PEP 100 <sup>1</sup> FM
AC input rating (VAC)	100-240 @ 3 A max (auto switching)	100-240 @ 9.2 A max (auto switching)	100-240 @ 9.2 A max (auto switching)
MaxAC power consumption (Watts)	45 RX 150 TX AM 150 TX FM	55 RX 430 TX AM 400 TX FM	55 RX 430 TX AM 400 TX FM
DC input (VDC)	22-30 @ 10 A max	22-30 @ 20 A max	22-30 @ 20 A max
Duty cycle	100%	100%	100%
Weight (lbs./kg)	12/5.44	20.5/9.3	20.5/9.3
Dimensions: H x D x W (excluding connector and handle)	7" x 20.7" x 2.5" 178 mm x 526 mm x 64 mm	7" x 20.7" x 5" 178 mm x 526 mm x 127 mm	7" x 20.7" x 5" 178 mm x 526 mm x 127 mm
70 MHz IF port	Yes, may be used with ext. modems (VHSM-5000)	Yes, may be used with ext. modems (VHSM-5000)	Yes, may be used with ext. modems (VHSM-5000)
Ethernet	10/100/1000	10/100/1000	10/100/1000
Radio control	External RCU-720 Ethernet Serial port	External RCU-720 Ethernet Serial port	External RCU-720 Ethernet Serial port

Note 1: Transmit power is reduced by 3 dB from 30-88 MHz and 400-512 MHz





## 721S LEGACY V/UHF RADIO OPTIONS

Nomenclature	Part Number	Description
RCU720	270-3148-066	Control Unit for all 721S Radios
H-250 Handset	970-0139-010	Connects to RCU-720
RCU Desktop Mount	270-3148-072	Mount for RCU, if RCU not mounted in rack
RCU 19" Dual Rack Mount	270-3148-073	19" mount for two RCU-720's
GRC Interface	270-3148-150	Replaces J14 with GRC J6 and J22 connectors (sockets)
Dual Antenna Port TX/RX	270-3148-152	Adds receive only port
Dual Antenna Port LoVHF	270-3148-156	Adds low VHF TX/RX port to -4B
Dual Antenna Port VHF/UHF	270-3148-157	Separate VHF and UHF TX/RX port to -3B
50W Kit	270-3148-160	50W AM carrier power amplifier
EPM HAVE QUICK I/II	270-3148-220	Fill panel and HQ software
EPM SATURN	270-3148-280	Fill panel and SATURN software
Slide Kit	270-3148-300	Slide kit for 19" rack
GRC Connector Kit	270-3148-310	J6 and J22 mating connectors (pins)
Audio Connector Kit	270-3148-313	J14 mating connector
PC GUI Controller	984-4799-0XX	Software application to control and configure 721S radios
Power Cable	270-3148-340	AC/DC 3M power cable
Power Cable	270-3148-341	AC/DC 10M power cable
Power Cable	270-3148-342	DC only 3M power cable
Cavity Filter	270-3148-302	External 19" rack cavity filter 225-400 MHz
Cavity Filter	270-3148-304	External 19" rack cavity filter 108-400 MHz

## 721S BLADE V/UHF RADIO OPTIONS

Nomenclature	Part Number	Description
RCU720	270-3148-066	Control Unit for all 721S Radios
H-250 Handset	970-0139-010	Connects to RCU-720
RCU Desktop Mount	270-3148-072	Mount for RCU, if RCU not mounted in rack
RCU 19" Dual Rack Mount	270-3148-073	19" mount for two RCU-720's
MMT-1000	270-3186-060	Mount capable of holding six 10W or three 50W Blades
RCU Mount	270-3186-061	RCU mount for MMT-1000
Audio Connector Kit	270-3148-313	J6 mating connector
Air Blocking Panel	270-3186-080	Six panel per MMT-1000
PC GUI Controller	984-4799-0XX	Software application to control and configure 721S radios
EPM HAVE QUICK I/II	270-3186-220	Fill connector and HQ software
EPM SATURN	270-3186-280	Fill connector and SATURN software
Cavity Filter	270-3186-303	Small Form Factor (SFF) ext. cavity filter 108-400 MHz
Filter Mount	270-3186-306	Mount holds qty 3 SFF filters







HANSLOVAN





To learn more, go  
→ [collinsaerospace.com](https://collinsaerospace.com)

**Collins Aerospace**

800.321.2224 | +1.319.295.5100

Fax: +1.319.378.1172

[learnmore@collins.com](mailto:learnmore@collins.com)

[collinsaerospace.com](https://collinsaerospace.com)