



BECKER PRIME LINE

COMMUNICATION & NAVIGATION



The Primeline II • Remote Controlled VHF-Transceiver RT 3209-()/CU 5209-()

■ This transceiver enables pilots and installations engineers to customize the VHF communication radios in any aircraft. The ideal combination of output power and low cost, provides the best value and operating characteristics for any particular aircraft and mission profile.

The system is ideally suited for installations where minimum panel space is to be used. It utilizes a small, lightweight CU 5209 control unit, which fits into a standard 2 1/4" (57 mm) round instrument panel cut-out, and is only 2 1/2" deep.

Special functions accessible via the frontpanel allow to adapt a personal set-up.

The lightweight remote transceiver unit, AR 3209 - (11) is mated with this control head, to complete the system. It can be installed at any convenient place in the aircraft.

The CU 5209 control unit offers a clear, high contrast, double line LCD display, which is readable under all lighting conditions, even in bright sunlight.

Both, active and preset frequencies are displayed, and can be transferred by a single stroke of the "Flip-Flop" button. Up to 20 preset frequencies can be easily entered in channel mode from the front panel, and stored in non volatile memory. When the power is turned on, a BITE-system automatically checks and monitors various functions of the system, to insure proper operation at all times and facilitate maintenance.

All systems will be JTSO certified for either VFR or IFR use in all types of fixed wings and rotary wing aircraft, and comply with the stringent ICAO requirements Annex 10, FM immunity.

For truly compact installations, this transceiver can be combined with other Becker PrimeLine II equipment, such as NAV-VOR/ILS navigation, ADF, and ATC transponder, which have similar control units, providing a pleasant presentation in the panel.

The remote transceiver unit can be controlled by other types of CDU or FMS devices and is ideally suited for use as essential sensor in flight management systems. ■

BECKER
AVIONIC SYSTEMS

Becker Flugfunkwerk GmbH

Technical Data

Remote Transceiver RT 3209-(11)

■ Supply voltage	+ 13.75 / + 27.5 V DC
■ Current consumption rec. transmit	≤ 0.2 A/≤ 0.2 A ≤ 3,5 A/≤ 4 A
■ Operating temperature range	- 40 °C . . . + 70 °C
■ Storage temperature	- 55 °C . . . + 85 °C
■ Altitude max.	50000 ft
■ Interface	RS 422, serial line
■ Dimensions incl. mounting	139 x 50 x 253 mm (H x W x D)
■ Weight max.	1.0 kg

Receive mode

■ Frequency range	118.000 – 136.975 MHz
■ Channel number	760
■ Channel spacing	25 kHz
■ Sensitivity	≤ 1.5 µV for 6 dB SINAD
■ Selectivity	≥ 8 kHz for 6 dB ≥ 60 dB for 25 kHz ≥ 40 dB for 17 kHz
■ Squelch	adjustable and off
■ AF-Frequency response	350 Hz – 2500 Hz ≤ - 6 dB
■ Speaker output	≥ 3 Watt into 4 Ω
■ Headphone output	≥ 100 mW into 600 Ω
■ AF auxiliary input	1 V ... 8 V across 600 Ω

Transmit mode

■ Power output at 13,75 V	≥ 6 W (carrier)
■ Power output at 27,5 V	≥ 10 W (carrier)
■ Modulation type	A3E
■ Frequency tolerance	≤ 15 ppm
■ Duty cycle	1 : 4 (min.) TX/RX

■ Modulation factor	> 70 % to 99 % dynamic compressor
■ Distortion	≤ 15 % at 70 % mod.
■ AF-Frequency response	350 Hz – 2500 Hz ≤ - 6 dB 4000 Hz at least - 18 dB
■ Mike input dynamic standard	typ. 2 mV across 150 Ω balanced typ. 120 mV across 100 Ω

Control Unit CU 5209-(1)-101

■ Supply voltage	+ 10 . . . + 32 V DC
■ Current consumption without Panel lighting	≤ 60 mA at 13.7 V DC ≤ 60 mA at 27.5 V DC
■ Panel lighting	≤ 160 mA at 13.75 V DC ≤ 80 mA at 27.5 V DC
■ Operating temperature range	- 20 °C . . . + 55 °C
■ Storage temperature range	- 55 °C . . . + 85 °C
■ Altitude max.	50000 ft
■ Interface	RS 422
■ Dimensions	61.3 x 61.3 x 62 mm (H x W x D)
■ Weight max.	0.26 kg

Applicable documents

■ COM	JTSO-2C37d, ED 23A JTSO - 2 C38d, ED 23A
■ Environment	ED-14C/DO-160C
■ Software	ED-12B/DO-178B
■ BAPT	FTZ 17TR 2010,A135570J
■ Homologation	10.911 / 99 JTSO, LBA

Recommended connector kits

■ CK 4201-S	for RT 3209-(11)
■ CK 5000-S	for CU 5209-(x)