BECKER ATC

AIR TRAFFIC CONTROL

TG 560 VHF Ground Station

A new VHF Multichannel Transceiver for Ground to Air Communication at Airfields, Airports, Airlines and Control Centres.

Main Features:

- Frequency range: 118 - 137 MHz (optional 118 - 156 MHz),
- Fully compatible with 8.33 kHz Channel spacing, requirements
- Local and Remote control operation,
- Telemonitoring and Telemeasuring facilities,
- Digital Signal Processing,
- Built in Test (Bite),
- Excellent technical dates according to ETSI EN 300 676
- Balanced Audio Interface
- Isolated PTT and SQUELCH control
- Balanced Voice Recording Output

BECKER AVIONIC SYSTEMS

BECKER TG 560 Ground Station

GENERAL DATA:

- **Frequency range:**
  118-136.980 MHz (Standard)
  118-156.975 MHz (Extended)
- **Channel spacing:**
  25 kHz / 8.33 kHz, automatically selected
- **Modulation type:** **AM, A3EJN**
- **AC-Power:**
  90 VAC .... 250 VAC, 45 Hz .... 65 Hz
- **DC-Power external:**
  - Range: 18 VDC .... 35 VDC
  - Normal: 28 VDC
- **RF Antenna connection:** N-Connector female
- **Warm up time:** ≤ 5 sec.
- **Duty cycle: RX/TX:** 4 : 1
- **Cooling:**
  Convection, temperature controlled fan
- **Voice recorder output:**
  0 dBm, +3 / -12 dB @ 600 Ohm, balanced
- **Environmental data:**
  Temperature range
  - :Operating:
    -20° C .... 55° C
  - :Storage:
    -55° C .... 85° C

  Humidity:
  48h, 50° C, 95% RH, without condensation

TRANSMITTER DATA:

- **Carrier power:**
  20 W, +/- 1,5 dB (Standard)
  ≤ 9.5 W (settable by software)
- **Frequency stability**
  ≤ 1 ppm
- **Protection of the transmitter:**
  VSWR = ± ∞, without any damage
- **Modulation depth:** 85 % ≤ m ≤ 95 %
- **Modulation compression:** Linear up to 85%, ± 2 dB
- **Modulation distortion:** ≤ 10%
- **AF-Response:**
  350 Hz .... 2500 Hz (8.33 kHz)
  2 dB ≥ ripple ≥ -4 dB),
  reference 0 dB @ 1 kHz
  350 Hz .... 3400 Hz (25 kHz)
- **Adjacent channel power:**
  50 dB (8.33 kHz), 60 dB (25 kHz)
- **Broadband noise measurement:** ≤ -130 dBc/Hz
- **AF-Line input level:**
  -20dBm to 10 dBm adjustable with internal potentiometer
- **AF-Line input impedance:**
  600 Ohm +/- 10%, balanced
- **Locale Mike sensitivity (Dyn.)**
  2 mV to 10 mV @ 200 Ohm, balanced

RECEIVER DATA:

- **Sensitivity (Mod. Depth 30%):**
  ≤ -101 dBm for 12 dB SINAD
- **Effective bandwidth:**
  ≥ ± 2.8 kHz for 8.33 kHz Channel
  ≥ ± 8.5 kHz for 25 kHz Channel
- **AF-Response:**
  350 Hz .... 2500 Hz (8.33 kHz)
  2 dB ≥ ripple ≥ -4 dB, reference 0 dB @ 1kHz
  350 Hz .... 3400 Hz (25 kHz)
  2 dB ≥ ripple ≥ -4 dB, reference 0 dB @ 1kHz
- **Adjacent channel rejection:** ≥ 60 dB
- **Spurious response rejection:** ≥ 70 dB
- **Intermodulation response rejection:** ≥ 70 dB
- **Blocking or desensitisation:** ≥ 80 dB
- **Cross modulation rejection:** ≥ 80 dB
- **Squelch operation:**
  6 dB ≤ S+N/N ≤ 12 dB, software adjustable
  Override level ≤ -85 dBm
- **Audio noise:**
  ≥ 40 dB S+N/N @ -13 dBm
- **RF-Input level range:**
  -101 dBm ≤ RF_{level} ≤ 10 dBm
- **RF-Dynamic range:**
  ≤ 6 dB AF variation for 100 dB RF variation
- **AF-AGC for 30% ≤ m ≤ 90%:**
  AF-Level variation ≤ 1.5 dB
- **AF-Line output level:**
  -20dBm to 10 dBm, adjustable with internal potentiometer
- **AF-Line output impedance:**
  600 Ohm +/- 10%, balanced
- **Local Headphone output power**
  ≥ 100 mW @ 600 Ohm, unbalanced
  Volume control at the front panel
- **External / Internal speaker power:**
  ≥ 4 W sinus @ 4 Ohm
  Volume control at the front panel

BECKER FLUGFUNKWERK GMBH
Baden Airpark B 108
77836 Rheinmünster / Germany
Phone +49 (0) 7229 / 305-0
Fax +49 (0) 7229 / 305-217
e-mail : info@becker-avionics.de
http://www.becker-avionics.de

Distributed by :