



Communication Solutions for Air Traffic Control and Ground Operations

Authorized Partner



Novelradio s.r.l. Via Elba n. 12 –
20144 MILANO

Tel. 02433817-4981022 – Fax
024987829

www.novelradio.it
info@novelradio.it



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Becker Profile

The Becker Avionics Group is an international supplier of highly-advanced and customized Avionics products, such as Communications, Navigation, Surveillance (CNS), Intercommunication Systems (ICS), Search and Rescue (SAR), Air Traffic Control (ATC) equipment and related products and program services.

Becker Flugfunkwerk GmbH was founded in 1956 and is, to this day, a 100 % privately owned company. Over the last 5 decades the Becker Avionics Group has earned an excellent international reputation for unsurpassed quality and reliability of its products.

Quality

Through advanced technology, field-proven quality and reliability, the Becker brand, with the familiar blue logo; is known and respected world-wide.

To ensure ongoing and sustainable quality, Becker Avionics is an approved aviation company, implementing and fulfilling the stringent requirements of:

- DIN EN ISO 9001:2000
- EASA PART 21 Subpart G
- EASA/ FAA PART 145
- ETSI EN 300 676
- RTCA and EUROCAE

Product Support

The Becker Avionics Group is committed to high-quality products and guarantees comprehensive and rapid support. The highest standards of quality also apply to customer support and are an essential part of the corporate culture. A comprehensive network of more than 250 licensed repair and service points constitute the backbone of the Becker Avionics Support Organization. Regional consignment stocks are available for rapid emergency loan or exchange. Four co-operating AOG centers in Europe and the United States offer their services 24 hours around the clock.

Product Families

Becker Avionics products are worldwide accepted and are manufactured to the highest civil aviation approval standards. We offer the following main product families:

- Communication, Navigation, Surveillance (CNS): Compact Line, Prime Line
- Intercommunication Systems (ICS)
- Search & Rescue (SAR) and Personal Locator Beacons (PLB)
- Air Traffic Control (ATC) Equipment and Supplies

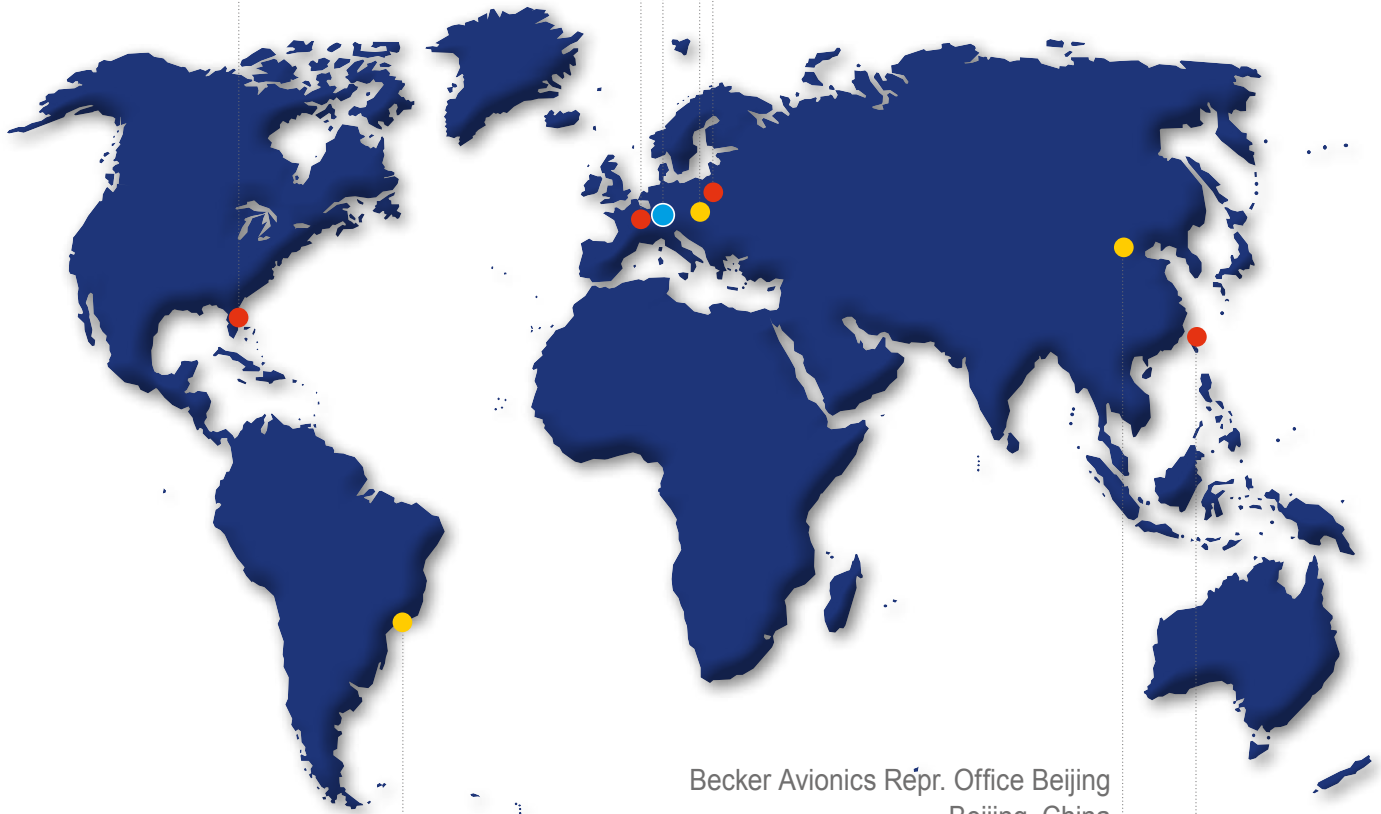
Becker Avionics Inc.
Miramar, Florida,
USA

Becker Flugfunkwerk GmbH
Rheinmünster, Germany

Becker Avionics East Europe
Trencin, Slovakia

Becker Electronique SARL
Beaucourt, France

Becker Elektronic Polska Sp.zo.o
Wroclaw, Poland



Becker do Brasil Ltda.
Rio de Janeiro, Brazil

Becker Avionics Répr. Office Beijing
Beijing, China

Becker Electronics Taiwan Ltd.
Lung Tang, Taiwan, Rep. of China

Headquarter

Becker Flugfunkwerk GmbH
Baden - Airpark B 108
77836 Rheinmünster / Germany

Phone +49 (0) 7229 / 305-0

info@becker-avionics.de

Fax +49 (0) 7229 / 305-217

www.becker-avionics.de

Group Managing Director Peter Meier

Registered Office Rheinmünster

Registration Court: Amtsgericht Mannheim HRB 210882

UST-ID: DE 811238988

Introduction



Global air traffic is increasing at an exponential pace. Excellence, Quality and Reliability is Becker's response for this demanding challenge.

Becker Avionics has developed, produced and serviced Air Traffic Control equipment and ground communications systems worldwide for over 45 years.

Becker's development activities are driven by a quest for Excellence, Quality and Reliability and pre-requisite knowledge, derived from many years out of field experience. Factory and on-site training is always kept in focus to offer customers highest reliability and availability for their ATC system.

Customer's demand to minimize the "cost of ownership" has become an integral part of our design, production and life cycle support philosophy. State-of-the-art servicing concept is being applied already during the development phase, in order to keep costs low for our customers, but not making any compromises for the product's reliability.

[Integrated systems for Air Traffic Control](#)

[VHF/UHF communication solutions for airline offices and aviation platforms](#)

[Commercial-of-the-shelf Products](#)

[Customer-tailored Project Management](#)

Becker Avionics International Group, including subsidiaries, representatives, and a comprehensive network of service centers, is present in all important aviation markets, showing flexibility and innovation. When it comes to system development and long-term programs, Becker is considered a strong and reliable partner in the aeronautics industry. The Becker R&D teams offer a large portfolio of custom-made radio-communications solutions, navigation systems, direction finding and sensor technologies, digital communications, signal processing and software engineering.

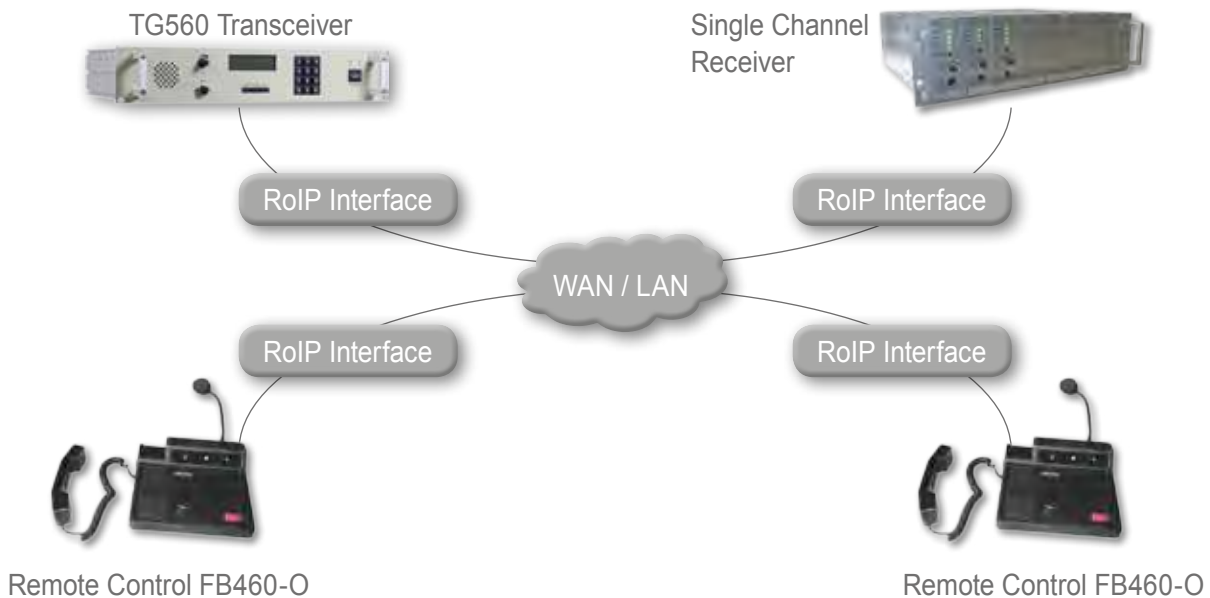
ATC/Systems & Integrated Solutions

SIERRA Scalable, Integrated & Enhanced Redundancy Radio Architecture

Air traffic services require efficient, secure, modern and user friendly communication equipment. Becker's price competitive COTS integrated radio declinations offer well proportioned solutions for small to medium-sized airports, airfields or airline operations stations.

Assembled with quality-proven components, engineered with state-of-the-art technology and driven with a customer-focused philosophy, our radio-communications solutions are meant to be flexible and scalable.

SIERRA, based on the Radio Control Unit RCU 3940, is a system that can be combined with the TG family transceiver stations and compatible standby switching units, and can be integrated in standing or supplied working positions. Transmission and reception functions can be operated separately if needed. Our new RS560 receiver rack frame-solution makes it possible to stack up to eight receivers in a reduced format. The system can also be integrated into a VoIP/RoIP configuration. As such, SIERRA comes as a reliable and scalable radio system with cost effective considerations. For special applications, Becker is also able to offer turnkey air traffic control solutions combining radio solutions, traffic display systems and airfield weather stations.



ATC/Systems & Integrated Solutions

SIERRA Scalable, Integrated & Enhanced Redundancy Radio Architecture

Examples of system combinations

RCU3940

Radio Control Unit

As the core part of a SIERRA declination, the RCU 3940 is a console-mounted remote control unit for ATC working positions, featuring the capability to operate eight transmitters and eight receivers, or eight transceivers simultaneously. It is also possible by connecting several RCUs in parallel to access the radio channels from various workstations.

- inputs and outputs: 600 Ω balanced
- supply voltage: 24 VDC \pm 15%, 1.1 A
- microprocessor-based operation
- computer-based configuration
- LED indication on keys
- PTT activation selectable via jumper
- control over antenna relays
- built-in loudspeaker
- level: adjustable from -15 dBm to +10 dBm
- dimensions: 213 x 128,4 x 75 mm (W x H x D)
- weight: 1.8 kg
- operating temperature range: 0 $^{\circ}$ C to 55 $^{\circ}$ C



RS560

VHF Receiver Frame System

- synthesized single channel receiver
- ideal for small and mid size airports, airlines and airport service providers
- 118 - 136 MHz
- 25 kHz / 8,33 kHz channel spacing
- Line interface 600 Ohm
- recorder interface
- control in-outputs
- remote controllable



ATC/Systems & Integrated Solutions

SIERRA Scalable, Integrated & Enhanced Redundancy Radio Architecture

Examples of system combinations

TG660

VHF Multichannel Transceiver

The TG660 is a new VHF Multichannel Transceiver for ground to air communications at airfields, airports, airline offices and air traffic control centers.

- frequency range: 118 - 137 MHz
- fully compatible with 8.33 kHz channel spacing requirements
- local and remote control operation
- 6 or 10 W output power
- digital signal processing
- built in test (bite)
- balanced audio interface
- isolated PTT and SQUELCH control
- balanced voice recording output
- VoIP/RoIP interface



SCU3940

Standby Switching Unit

The BECKER SCU3940 is a rack-mount main/standby switch featuring capability to control two transmitters and two receivers.

- controls for RF power, modulation, squelch and AF level
- manual, automatic and remote modes
- radio status indication
- remote interface: RS 232
- switch-over time: <0.1 sec
- switching capability for 2 coaxial relays, M-S audio-path,
- inband signaling for PTT and squelch contact



ATC/Systems & Integrated Solutions

DOCS Digitally Operated Communication System

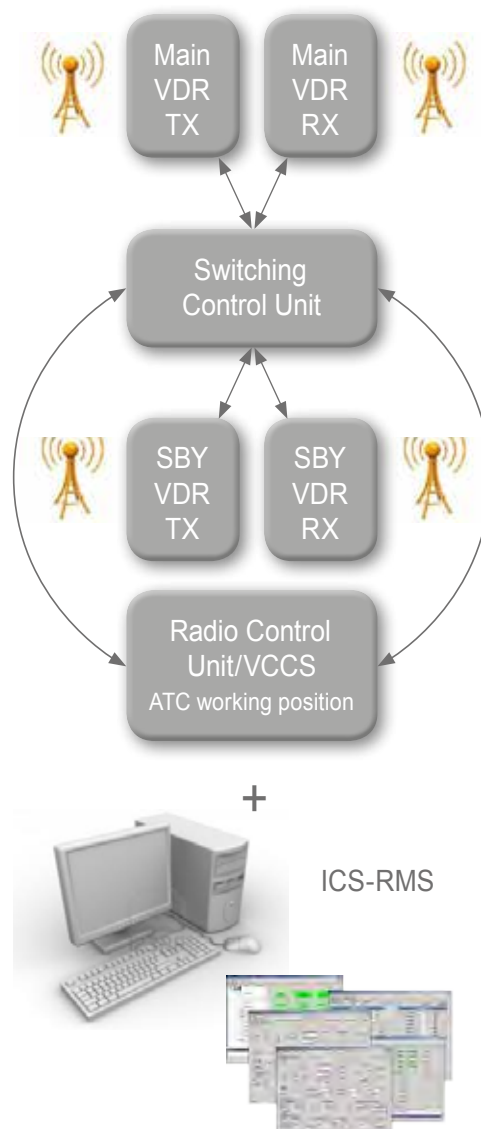
Data exchange has never been as crucial as today in air traffic management. Fast, secure and reliable communication solutions are the basis for safe air operations.

Becker offers DOCS: a digital radio system using 8.33 and 25 MHz channel spacing, with multi mode transmission and reception stations fitted with VDL and ACARS capability.

Based on the adjustable 50W TS4910 and RS4910 VHF Digital Radio sets and the ICS-RMS (Integrated Communications System - Remote Management Software), DOCS can be easily adapted on an existing or supplied VCCS (Voice Communications Control System) via VoIP/RoIP interface.

Thanks to its technical supervision station, the system can be fully remote controlled and configured to work on an active/standby mode via a compatible switching unit, ensuring best reliability and contributing to overall safe air traffic operations.

Becker can also offer customer-tailored solutions for installations requiring specific considerations.



ATC/Systems & Integrated Solutions

DOCS Digitally Operated Communication System

Examples of system combinations

TS4910

Multi Mode VDR Transmitter

The TS 4910 has been designed for A3E (8.33 kHz / 25 kHz) communications and for multi mode operations (A3E+ optional ACARS, VDL Mode 2, Mode 3, etc.)

- frequency range 118 - 136,975 MHz
- output power up to 50 W for AM and D8PSK
- compliant New Mask for D8PSK
- built-in-test
- internal protections against over-voltage, overheat, VSWR
- tele-supervising software



RS4910

Multi Mode VDR Receiver

The RS 4910 has been designed for A3E (8.33 kHz - 25 kHz) communications and for multimode operations (A3E + optional ACARS, VDL Mode 2, Mode 3, etc.)

- frequency range 118 - 136,975 MHz
- built-in-test
- internal protections
- tele-supervising software



ICS-RMS

Integrated Communications System - Remote Management Software

- open architecture
- detailed log of events
- remote BITE capability
- friendly graphic user interface
- system, subsystem and component monitoring
- rack configuration view
- continuous polling for real time status
- RS232/RS485/RS422 serial interfaces
- easy parameter modification
- customizable to specific requirements



please contact us for enquiries

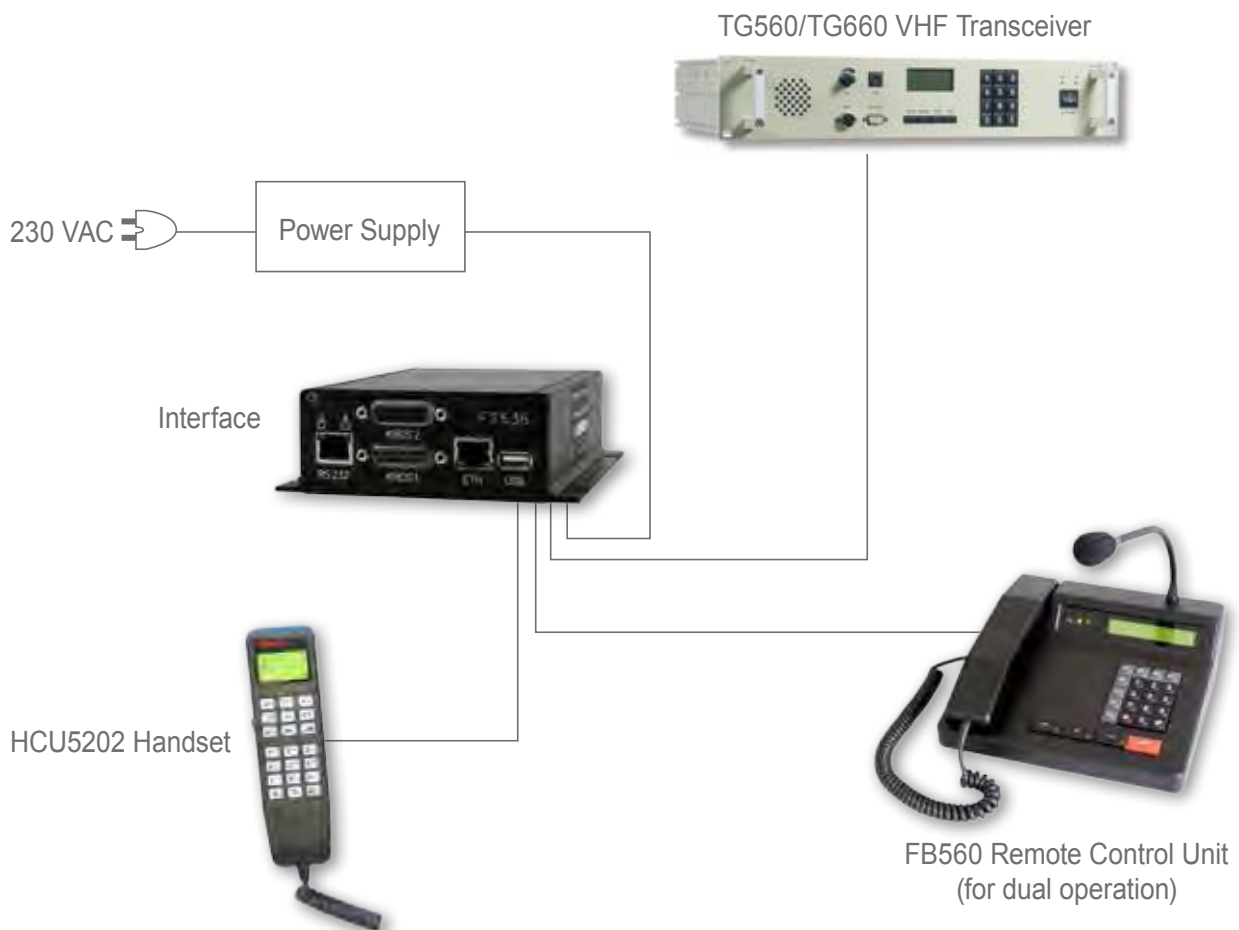
ATC/Systems & Integrated Solutions

ARCAAS Automatic Radio Call Answering & Announcement System

ARCAAS has been designed for the automatic answering of radio calls at airfields and aviation platforms, giving a valuable alternative for small and medium-sized facilities that wish to maintain broadcasting capability outside air traffic services duty hours.

With an incoming radio call, as soon as the channel is free, a pre-recorded message is broadcast on the specified frequency, the transmitter and the system then returning to standby mode. To send permanent announcements, the system can be configured so that the message is continuously repeated. System operation is controlled through the keyboard of the HCU 5202 handset. A pre-specified message can be accessed without simultaneous transmission. The built-in memory is suitable for messages of up to a 4 minute length and is suitable for ATIS applications.

ARCAAS can be installed alongside existing transmitters or may be supplied in combination with a complete radio-communications architecture.



ATC/Systems & Integrated Solutions

ATLASS ADS-B Traffic Localization And Surveillance System

Global air traffic is increasing at an exponential pace. Within the next decade, the amount of passengers that take off to the already crowded skies will double. More passengers mean more planes. Air travel, however, is already plagued with delays. Air navigation services providers are responsible for not only the safe passage of the ever expanding grid of air traffic, but also for overall efficiency. We have come to the undeniable consideration that existing radar technology cannot keep up the growing demand.

In an effort to increase efficiency, streamline operations, minimize infrastructure costs and, most importantly, improve safety, more and more air navigation services providers are turning away from traditional radars and looking toward new technologies. ADS-B (Automatic Dependent Surveillance – Broadcast) comes as a key element of future air traffic management systems, such as described in the SESAR or NextGen programs.

The current air traffic surveillance methods rely on ground-based radar networks which generate interrogation signals and process the aircraft's squawk reply in order to provide controllers with situational awareness. ADS-B equipped aircraft will broadcast their GNSS positions once per second along with a stream of various other vital information (identification, altitude, speed, velocity, projected path...) A radar-based airspace coverage is imperfect because of its physical inherent limitations. On top of that, consequent investment costs during acquisition and installation phases have to be considered and regular service and expensive upgrade programs are most of the time inevitable.



ADS-B comes in this way as a rational and price effective solution and clearly sets future developments in air traffic management.

ADS-B makes flying significantly safer for the aviation community and paves the way for extended air traffic surveillance coverage, even in regions where radar pick-up is unavailable or on small or medium size airfields not equipped with SSR systems. ADS-B gives also a wide set of side applications: SAR air operations coordination, fire fighting air mission control...

Becker's initiative in this field is called ATLASS: ADS-B Traffic Localization And Surveillance System.

ATC/Systems & Integrated Solutions

ATLASS ADS-B Traffic Localization And Surveillance System

ATLASS declinations include the 1090 MHz ADS-B Message Receiver Stations for outdoor installation.

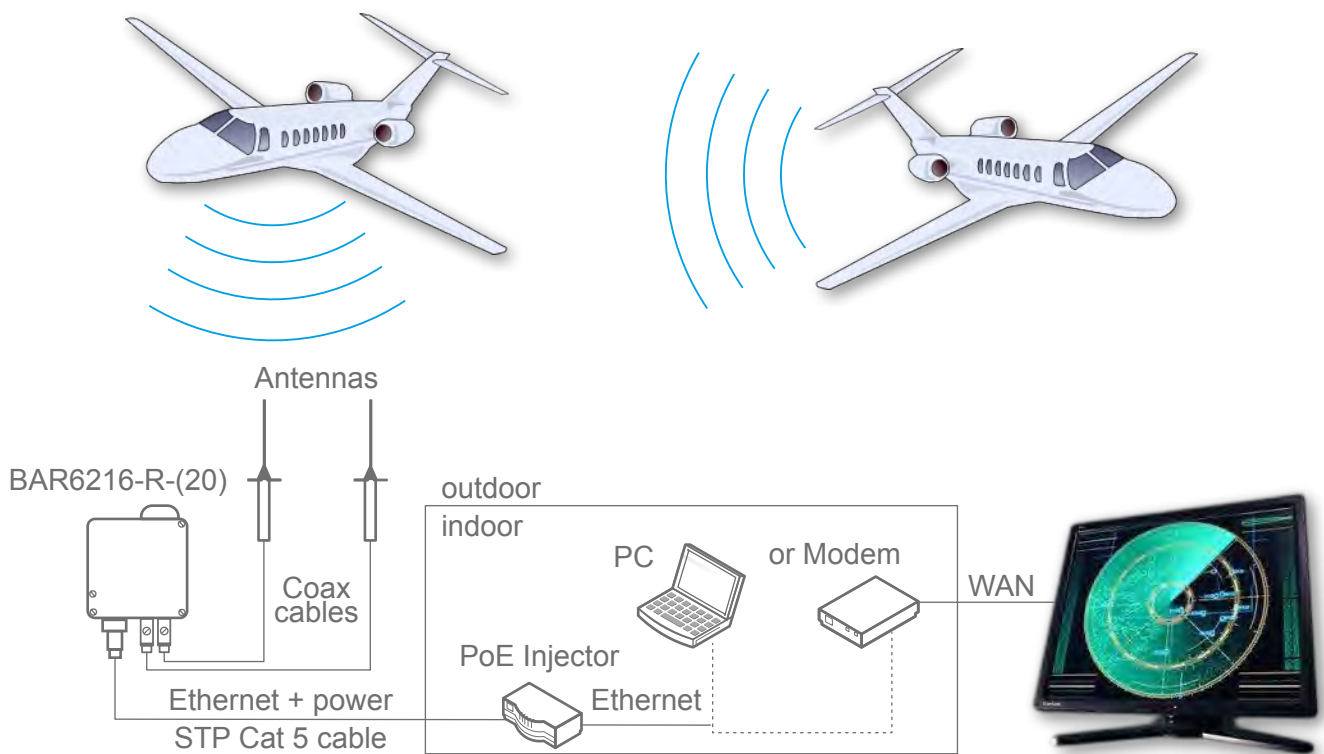
Every ADS-B Out equipped aircraft and ground vehicle periodically transmits information about its identity, position, altitude, speed and status. These units are able to receive 1090 MHz ADS-B messages from properly equipped air and ground participants of air/ground traffic and generate a time-labeled report for each received message. These reports are transmitted over TCP protocol through Ethernet interface for processing. The unit is supplied with Power over Ethernet (PoE) technology which requires only a single cable for unit supply and data transfer.

Synchronization is made with UTC time generated reports. The source of time reference a built-in GPS receiver. Time labeling of message reports enables the remote processing system to coordinate data from a set of spatially distributed receivers.

Wide operating temperature range, low power consumption and simple maintenance requirements let the unit operate in remote areas with minimal infrastructure. A compact design minimizes number of components required, making it an efficient and functional system.

Data provided by ATLASS can be processed by ATM data fusion systems along with other information sources (e.g. SSR radars). ATLASS is also a useful tool for air navigation services providers having no access to conventional radar data. Air stations or airfields wishing to improve overall flight safety and to make an extended use of a recognized air situation will find in ATLASS their price-effective and reliable solution.

User friendly and customizable solutions can be offered for applications such as: surface movement awareness, A-SMGCS, complementary air traffic surveillance tools, back-up / fall-out scenarios, fire and rescue air operations management, etc...



ATC/Systems & Integrated Solutions

ATLASS ADS-B Traffic Localization And Surveillance System

ATLASS-VT (ATLASS Vehicle Tracker)

The ATLASS Vehicle Tracker is a compact and fully autonomous ADS-B Transmitting Subsystem designed to be installed in ground vehicles at airports. The units periodically report the position and speed of the vehicles, thus providing valuable information for airport ground traffic management.

Each unit includes a GPS receiver with patch antenna which provides position/velocity data processed and transmitted via 1090 MHz Extended Squitter. This makes the vehicle visible to ADS-B ground stations and to aircraft equipped with ADS-B receivers.

In addition to position, speed and heading data, each unit also reports its identification code, thus allowing easy recognition of the vehicle.

For maintenance and configuration, the unit is attached to a standard PC or laptop via USB interface.

Other versions are intended to be fixed permanently inside vehicles as a long-lasting solution, with roof-mounted antennas and a remote controlled receiver station.

ATLASS vehicle transponders are easily deployed on any vehicles around the airport, allowing each vehicle to be uniquely identified on tower displays and fully integrated into an A-SMGCS solution, providing enhanced safety and contributing to runway incursion prevention.



ATC/Systems & Integrated Solutions

LRC Lighting Radio Controller

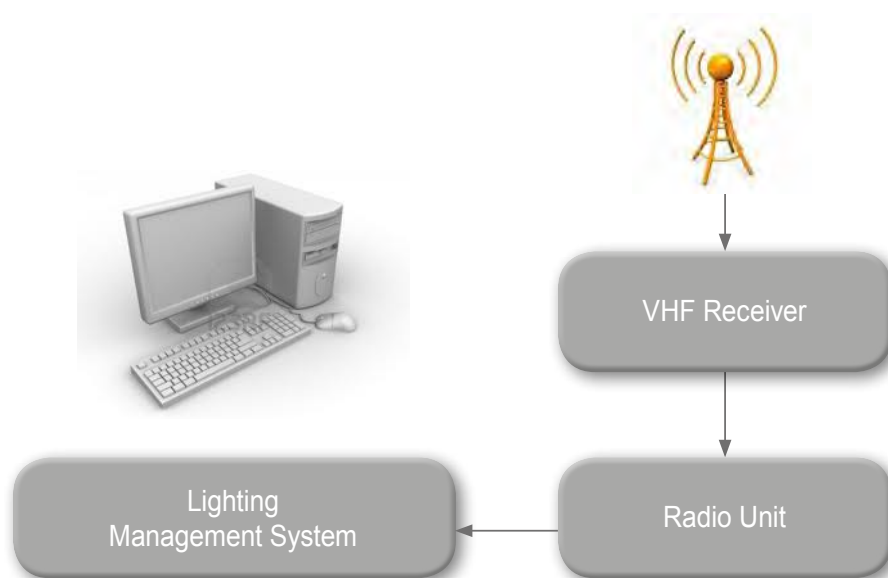
The LRC unit is Becker's response to small and medium-sized airfields or helicopter pads which require an automated, flexible and cost effective radio controllable lighting system.

The LRC is a VHF receiver which can, without any additional facilities, remotely, comfortably and securely activate lighting, helping to maintain safe and efficient operations at airports, even where air traffic services are not available.

Activation is done when the pilot hits the transmit key and features three different levels of lighting with a set of pulse sequences in accordance with ICAO recommendations. Thanks to its timer, the unit provides illumination for 15 minutes.

The remote control receiver can be operated on specified frequencies. Frequency settings changes can be done by local staff, ensuring maximized airfield availability.

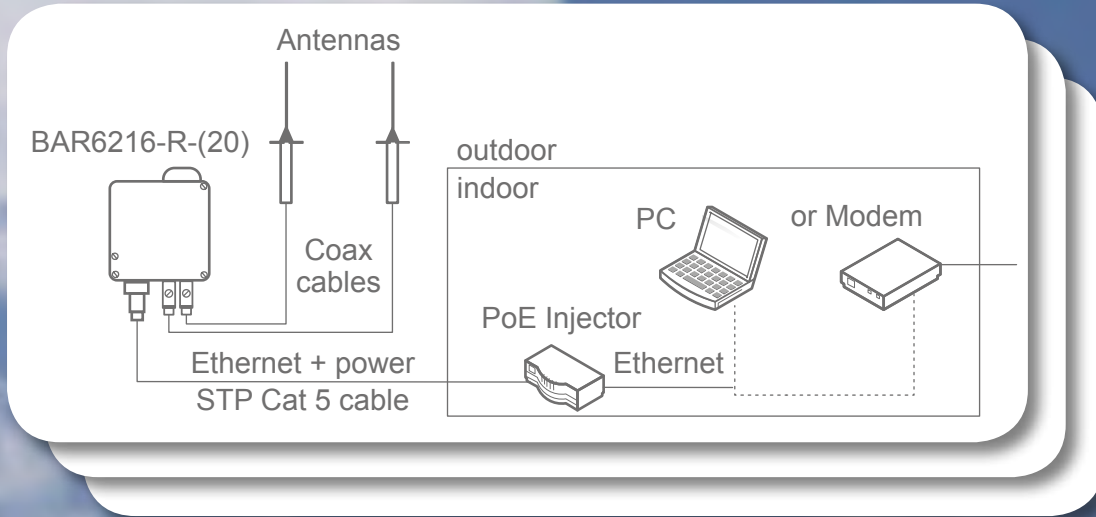
The equipment is mounted on a 300 x 300 mm base plate and can be placed in existing control cabinets or in supplied separate control cabinets.



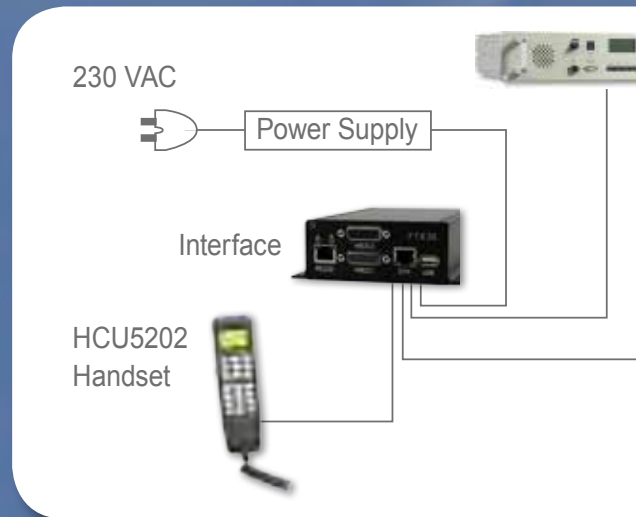
Example of an Integrated System Solution for Airports & Air Traffic Control Centers



ATLASS ADS-B Ground Stations



Airfield Weather Station



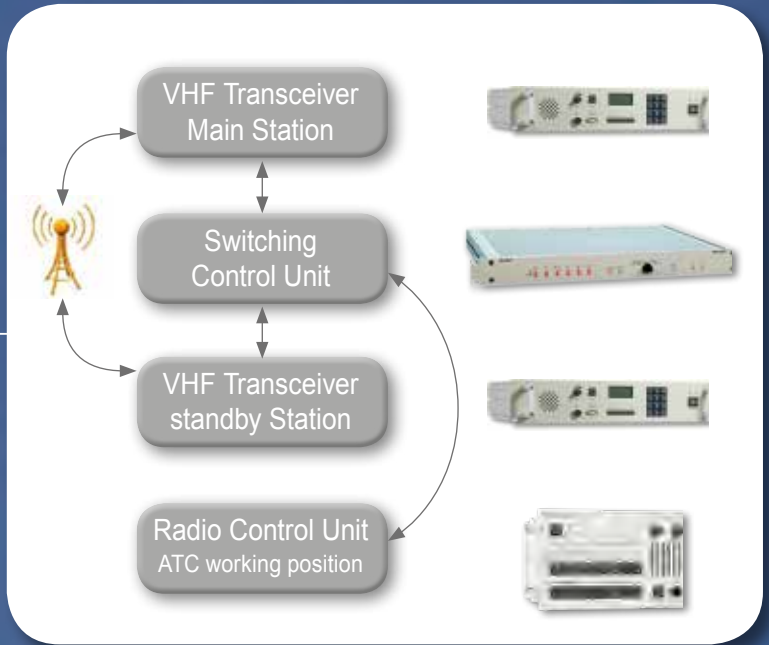
Automatic Radio Call Answering & Announcement System - ARCAAS



Air Traffic Controller

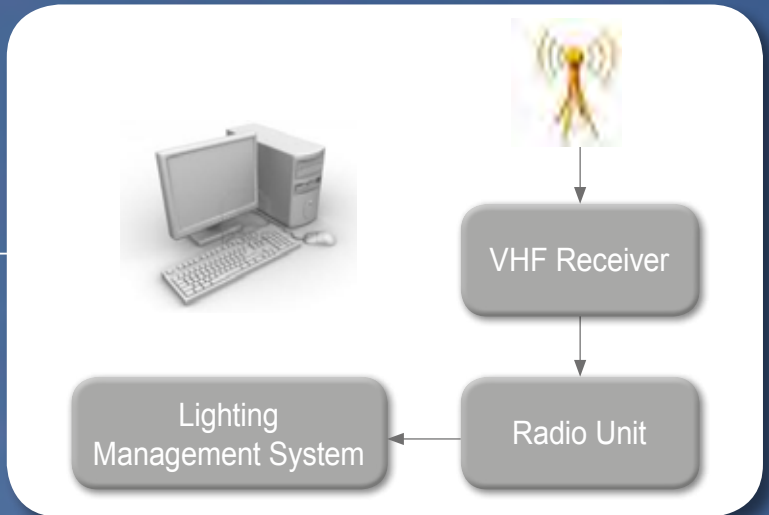


SIERRA VHF Radio System



TG560/TG660
VHF Transceiver

FB560
Remote Control Unit
(for dual operation)



Lighting Radio Control System



ATC/Mobile Systems

GK615/GK616 Mobile VHF Transceivers

In continuation of the very successful portable/mobile VHF transceiver BECKER GK415, the portable VHF Transceivers GK615/616 offer latest standards.

The new GK61X series are ideally suited for ballooning, emergency radio in aircraft, mobile radio in vehicles and portable usage at airfields and airports. Based on the new VHF Transceiver AR6201 it offers latest technology and comfortable operation on all frequency channels in the aeronautical frequency range adjustable in 25 kHz steps as well as in 8.33 kHz steps.

With an output power of 6 W (10 W for the GK616), the transmitter is strong enough for medium range communications. The user friendly operator menu and the extensive setup possibilities allow a very personal setup for the operator. The large, clear and dazzle-free LC display shows the active frequency and either the standby frequency or memory channel. The nicely shaped and sturdy aluminum case integrates a dry-lead-acid battery (12 V 2.2 Ah) which can be easily charged via a socket located on the front panel. This integrated charging circuit allows the operation from 10 to 32 V.

The basic equipment includes: microphone, dry-lead-acid battery (doubled for the GK616 version), charging device, antenna, carrying belt, handle and carrying bag and also a vehicle mounted bracket making the unit operational as soon as it is delivered.



ATC/COTS-Products Portfolio

Performance/Characteristics	Group	Article No.
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GK 615

Mobile VHF/AM Transceiver

02

0622.834-923

- 118.000 MHz - 136.975 MHz
- 25/8,33 kHz channel spacing
- 760, 25 kHz / 2280, 8.33 kHz
- carrier power nominal ≥ 5 W, 14 V DC
- sunlight readable LC-display
- -20°C to +55°C
- illumination 14 V DC, white
- ext. supply voltage: 10.0 V DC - 32.0 V DC
- power consumption: standby < 80 mA, transmit mode: 2.5 A
- lead-acid-dry battery 2.2 Ah
- battery charger
- AC-connector cable
- whip antenna
- carrying case
- dynamic hand microphone, 1PM415-1

- weight: 4.00 kg (8.82 lbs)
- height: 85.0 mm (3.346 inch)
- width: 165.0 mm (6.496 inch)
- depth: 277.0 mm (10.906 inch)



GK 616

Mobile VHF/AM Transceiver

- same features as GK 615
- 10W output power
- weight approx. 4.8 kg (without man pack)



ATC/COTS-Products Portfolio

Performance/Characteristics

Group

Article No.

TG560-(01)-(00)

VHF/AM Transceiver

06

0572.330-926

- remotely control
- 118.00 MHz to 136.975 MHz
- 8.33 / 25 kHz channel spacing with integrated power supply, 20 memory channel
- carrier power >20W
- FCC, Part 87 and ETSI EN 300676 compliant
- certification: DFS: D-0012/2005



- weight: approx. 7.7 kg (16.97 lbs)
- height: 85 mm (3.346 inch)
- width: 428 mm (16.850 inch)
- depth: 368 mm (14.488 inch)

TG560-(2)-(00)

VHF/AM Transceiver

06

0573.701-926

- remotely control
- 118.00 MHz to 155.975 MHz
- 8.33 / 25 kHz channel spacing with integrated power supply, 20 memory channel
- carrier power >20W
- FCC, Part 87 and ETSI EN 300676 compliant



- weight: approx. 7.7 kg (16.97 lbs)
- height: 85 mm (3.346 inch)
- width: 428 mm (16.850 inch)
- depth: 368 mm (14.488 inch)

TG660-05

VHF/AM Transceiver

0635.367.926

- frequency range: 118 - 137 MHz
- fully compatible with 8.33 kHz Channel spacing requirements
- local and Remote control operation
- 6 W output power
- digital signal processing
- built in test (bite)
- balanced audio interface
- isolated PTT and SQUELCH control
- balanced voice recording output
- VoIP/RoIP interface
- dimensions (WxDxH):
 - case: 428 x 350 x 86,5 mm
 - 19" unit: 482,6 x 350 x 88,1 mm
- weight: ~7,0 kg



TG660-10

VHF/AM Transceiver

0635.375.926

- same feature as TG660-05
- 10 W output power



ATC/COTS-Products Portfolio

Performance/Characteristics

Group

Article No.

GS5910-25-(02)

VHF Transceiver

- 118 MHz - 144 MHz AM operation
- 118 MHz - 163 MHz FM operation (optional)
- 8.33 KHz / 25 KHz channel spacing
- 25 W RF output power
- fully remote controllable
- operating voltage: 85 V AC - 265 V AC or 24 V DC
- ETSI 300676 compliant
- certification: non certified

0596.019-923



- weight: approx. 12 kg (26.45 lbs)
- height: 132 mm (5.197 inch)
- width: 430 mm (16.929 inch)
- depth: 470 mm (18.504 inch)

GS5910-50-(02)

VHF Transceiver

- 118 MHz - 144 MHz AM operation
- 118 MHz - 163 MHz FM operation (optional)
- 8.33 KHz / 25 KHz channel spacing
- 50 W RF output power
- fully remote controllable
- operating voltage: 85 V AC - 265 V AC or 24 V DC
- ETSI 300676 compliant
- certification: non certified

0596.027-923



- weight: approx. 12 kg (26.45 lbs)
- height: 132 mm (5.197 inch)
- width: 430 mm (16.929 inch)
- depth: 470 mm (18.504 inch)

GS5930-30-(02)

UHF Transceiver

- 225 MHz to 400 MHz
- 25 KHz channel spacing
- 30 W RF output power
- AM operation
- FM operation optional
- fully remote controllable
- operating voltage: 85 V AC - 265 V AC or 24 V DC
- ETSI 300676 compliant
- certification: non certified

0596.051-923



- weight: approx. 12 kg (26.45 lbs)
- height: 132 mm (5.197 inch)
- width: 430 mm (16.929 inch)
- depth: 470 mm (18.504 inch)

ATC/COTS-Products Portfolio

Performance/Characteristics

Group

Article No.

TS 4910

Multimode VDR Transmitter

0527.335-923



- 118 MHz to 144 MHz, optional 163 MHz
- 8.33 KHz / 25 KHz channel spacing
- 50 W RF output power,
- AM and FM operation
- VDL modes optional,
- fully remote controllable
- operating voltage: 24 V DC
- ETSI 300676 compliant

- weight: approx. 14 kg (30.86 lbs)
 - height: 132.5 mm (5.216 inch)
 - width: 483 mm (19.015 inch)
 - depth: 430 mm (16.929 inch)
-

TS 4910 A

Multimode VDR Transmitter

0558.885-923



- 118 MHz to 144 MHz, optional 163 MHz
- 8.33 KHz / 25 KHz channel spacing
- 50 W RF output power
- AM operation
- FM operation
- VDL modes optional
- fully remote controllable
- operating voltage: 85 V AC - 265 V AC or 24 V DC
- ETSI 300676 compliant

- weight: approx. 14 kg (30.86 lbs)
 - height: 132.5 mm (5.216 inch)
 - width: 483 mm (19.015 inch)
 - depth: 430 mm (16.929 inch)
-

RS 4910

Multimode VDR Receiver

0527.327-923



- 118 MHz to 144 MHz, optional 163 MHz
- 8.33 KH / 25 KHz channel spacing
- AM operation
- FM operation
- VDL modes optional
- fully remote controllable
- operating voltage: 24 V DC
- ETSI 300676 compliant

- weight: approx. 4 kg (8.82 lbs)
 - height: 483 mm (19.015 inch)
 - width: 44.5 mm (1.751 inch)
 - depth: 430 mm (16.929 inch)
-

ATC/COTS-Products Portfolio

Performance/Characteristics

Group

Article No.

RS 4910 A

Multimode VDR Receiver

0558.893-923

- 118 MHz to 144 MHz, optional 163 MHz
- 8.33 KH / 25 KHz channel spacing
- AM operation
- FM operation
- VDL modes optional
- fully remote controllable
- operating voltage 85 V AC - 265 V AC or 24 V DC
- ETSI 300676 compliant

- weight: approx. 4 kg (8.82 lbs)
- height: 483 mm (19.015 inch)
- width: 44.5 mm (1.751 inch)
- depth: 430 mm (16.929 inch)



RCU 3940

8-Channel Remote Control Unit

0511.341.918

- operating voltage: 24 V DC \pm 15%
- Power consumption: typ. 1.1 A max
- operating temperature range: 0 °C 55 °C
- AF inputs: 8 symmetrical inputs, switchable between 600 Ω and 25 k Ω (Transformer with center tap)
- AF input level: 0 dBm at 600 Ω – 15 dB...+10dB, adjustable squelch signaling: phantom circuit or separate input (10 k Ω with respect to +UB) low active
- microphone input:
 - dynamic microphone: 3 mV at 200 Ω
 - standard microphone: 150 mV at 150 Ω , operating voltage 5 V approx. 10 mA
 - electret microphone: 10 mV at 700 Ω , operating voltage 5 V approx. 1 mA
- AF outputs: 8 symmetrical outputs, 600 Ω (transformer with center tap)
- AF output levels: 0 dB at 600 Ω -15 dB...+10 dB, adjustable
- PTT activation: phantom circuit or open collector (low active), (max. 50 V, max. 100 mA)
- 8 tape recorder outputs



RS560-01

VHF Single Channel Receiver

0628.808-923





- synthesized single channel receiver
- stackable in a 8-unit 19" frame rack
- ideal for small and mid size airports, airlines and airport service providers
- 118 - 136 MHz
- 25 kHz / 8,33 kHz channel spacing
- line interface 600 Ohm
- recorder interface
- control in-outputs
- remote controllable












ATC/COTS-Products Portfolio

Performance/Characteristics	Group	Article No.	
<p>LRC Lightning Radio Controller for remote switching of the airfield or heliport lighting</p> <ul style="list-style-type: none"> • 118.000 MHz to 136.975 MHz • sensitivity: <math><1.5 \mu V @ 50 \Omega</math> for safe switching, adjustable from • about 1...15 $\mu V @ 50 \Omega$ AR 4201 on the Setup Mode • outputs: 3 floating relay contacts, max. 10 A with resistive load • operating voltage: 85...265 V ~, optional DC13.75 V • certification: B-7847/94 (DFS) 		0595.561-918	
			<ul style="list-style-type: none"> • weight: 2.2 kg (4.850 lbs) • height: 100 mm (3.973 inch) • width: 300 mm (11.811 inch) • depth: 300 mm (11.811 inch) without compact enclosure

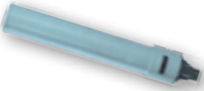



ATC/Accessories for GK 615 / GK 616

Description	Group	Article Number	
<p>1PM415-1 Standard dynamic microphone for GK61X</p>	02	0603.120-951	
<p>1PH012 Speaker/Microphone for GK61X</p>	02	0498.475-951	
<p>1PM012 High performance dynamic microphone, complete with cable, connector and microphone holder</p>	02	0344.214-951	
<p>1MC012 Microphone holder</p>	02	0505.897-268	



ATC/Accessories for GK 615 / GK 616

Description	Group	Article Number	
1BA016 Rechargeable Battery 12 V/2.2 Ah	02	0883.158-391	
1BC415 Battery charger	02	0889.113-918	
1K415 AC-Connector cable	02	0295.728-276	
1A415 Whip antenna	02	0884.294-952	
1CC415 Carrying case (soft)	02	0893.854-266	
1KA415 Car battery cable	02	0505.900-950	
1A415-1 Steel-band antenna	02	0586.137-375	
1A415-2 Multiflex antenna	02	0586.129-375	
1AD415 Adapter UHF	02	0586.110-277	

ATC/Accessories for Base Station

Description	Group	Article Number	
BPE 4910 Programmer 4910 series radio	06	0565.751-917	
1A004 Groundplane antenna 100-156 MHz	06	0267.031-952	
1A004-1 Groundplane antenna 108-156 MHz	06	0515.124-952	
1A045 Groundplane antenna 225-400 MHz	06	0811.939-952	
1A049 Groundplane antenna 116-152 MHz	06	0812.064-952	
1A054 Omnidirectional antenna 138-500 MHz	06	0577.634-952	
ÜS001 Overvoltage protection connector, up to 40 W power	06	0887.870-277	
1ÜS012 Overvoltage protection connector, for 50 W power	02	0600.873-277	
1PH028 Headset with dynamic microphone 230 Ω without amplifier, headphone 550 parallel with DIN connector	06	0860.557-951	
1PH030 Dynamic Headset single ear monaural headset without amplifier	06	0574.775-951	
1PH031 Headset with dynamic microphone binaural headset	06	0600.921-951	
1PM012 High performance dynamic microphone, complete with cable, connector and microphone	06	0344.214-951	

ATC/Accessories for Base Station

Description	Group	Article Number	
FS 460 Foot control for TG 460, TG560	06	0889.911-959	
FS460-GS Foot switch for GS ground stations	06	0574.767-959	

ATC/Accessories for Radio Controller

Description	Group	Article Number	
1A049 Groundplane antenna, 116-152 MHz, for LRC 4201	06	0812.064-952	
AK LRC antenna cable for LRC 4201, 30 m incl. mounted connectors		0604.348-950	
KS LRC Compact enclosure for LRC 4201		0570.273-945	

Becker Policy

The information contained in this Product Catalog is a reference for Becker prospective customers.

Becker avionics are quality products designed and built in accordance with TSO/ETSO, TSO and ETSI regulations, as applicable.

The suggested retail prices shown may serve the authorized Becker dealers as a quotation reference for individual, uninstalled, configurations. In some countries an additional STC may be required for civil application.

This Product Catalog is valid until the next amendment.

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