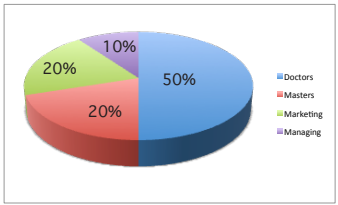

Connecting The Future
BTSTC
Beijing Telecompass Space Technology Co.,Ltd.

Company Profile

Beijing Telecompass Space Technology Co.,Ltd.(BTSTC) is a leading integrator of aerospace electronic products covering aerospace components, aircraft&ground electronic terminals, optical terminals as well as related test devices. Various modules and chips can be customized, such as microwave, signal process, power and antenna. One stop service from R&D, manufacture, test to final delivery is given.

BTSTC has established long-term cooperative partnership with China Aerospace Science & Technology Corp., China Aerospace Science & Industry Corp., Chinese Academy of Sciences, China Electronics Technology Group Corp., colleges and universities. As the cooperation platform and marketing arm, BTSTC is engaged in exchanging key technologies, products, services with international partners.

√ Staff=30



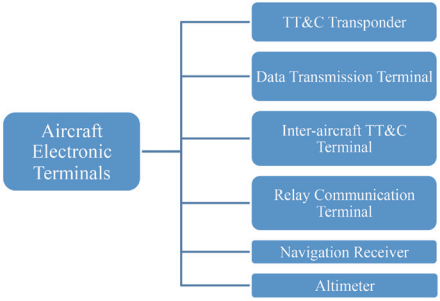
√ Flight experience of major products
√ Independent Intellectual Property Rights
√ ISO 9001 Certificate Since 2015

Major Products

1. Aircraft Electronic Terminals
2. Ground Electronic Terminals
3. General Test Equipments
4. Optical Communication Terminals
5. Microwave Modules
6. Signal Processing Modules
7. Power Modules
8. Antenna Modules
9. Optical Modules
10. Customized Chips
11. Customized Software

Aircraft Electronic Terminals

According to customers' requirements, different quality grade electronic terminals, such as aerospace-grade, military-grade, technical-grade, can be customized. Multiple functions can also be integrated.



●TT&C Transponder

Cooperated with ground measure equipment, it can achieve the functions of telecontrol, telemetry, ranging, velocity measurement and so on.

●Data Transmission Terminal

It can receive uplink signals and implement collecting data from aircraft, encoding, scrambling and radiating to the ground to insure bidirectional communication.

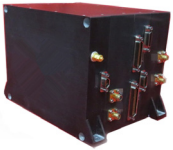
Aircraft Electronic Terminals

●Inter-aircraft TT&C Terminal

Coupled with cooperative aircraft terminal, it can achieve precise relative ranging, time setting, data transmission and so on.

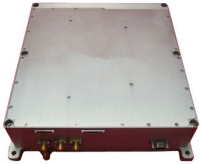
●Relay Communication Terminal

It can receive forward information from relay satellites and radiate backward information to relay satellites to do bidirectional communication with relay satellites.



●Navigation Receiver

Base on civil navigation satellite systems, such as BD, GPS, GLONASS, various navigation receivers can be developed and used in aircrafts.

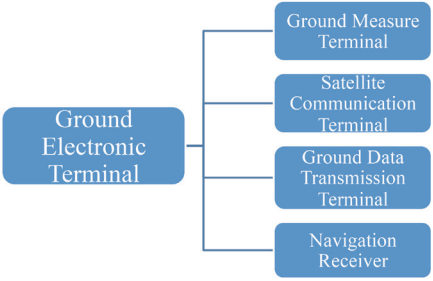


●Altimeter

It can measure relative height of sea or ground surface and is widely used in aircrafts to control vertical height as important terminal.

Ground Electronic Terminals

Electronic terminals, exchanging information with aircrafts, can be customized to do the function of measurement and control, communication, data transmission, navigation and so on. Multiple functions can also be integrated.



●Ground Measure Terminal

It can transmit uplink signals and receive downlink signals from aircrafts. The relative distance, velocity, telecontrol, telemetry, time difference measurement can be completed.

●Satellite Communication Terminal

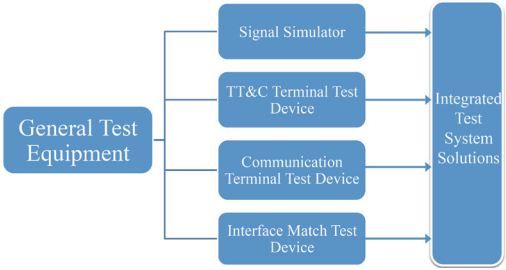
It can receive backward information from satellites and radiate forward information to satellites to do bidirectional communication.

●Ground Data Transmission Terminal

It can realize the function of receiving, displaying analysis, storing and replaying of high code rate data-transmission signals, which is suitable for multiple data rate and modulation scenes.

General Test Equipment

According to the thought of high integration and multiple function, various ground test equipment and integrated test system solutions can be provided for customers.



●Signal Simulator

The measurement, communication and navigation signals of multiple frequency and modulation can be generated in a variety of dynamic scenes.

●TT&C Terminal Test device

In phase of development, system test and field experiment of TT&C terminal, it can provide support with wired or wireless closed loop test. Stimulating ground measure station, it can transmit uplink signals, receive downlink signals and so on.

General Test Equipments

●Communication Terminal Test Device

In phase of development, system test and field experiment of communication terminal, it can provide support with wired or wireless closed loop test. Stimulating ground communication station, it can transmit forward signals, receive backward signals and so on.

●Interface Match Test Device

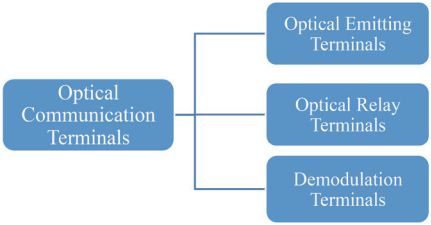
Multiple interfaces such as 1553B bus, CAN bus, RS232, RS422, RS485 and OC instructions are integrated, which meet requirements of various interface test tasks.

●Integrated test system solution

Aimed at meeting system test requirements, we offer integrated test system solutions including power supply and distribution, signal simulation, terminal test, interface match test and visualized monitoring. It features high integration, automation, comprehensive function and flexible combination.

Optical Communication Terminals

According to customers' requirements, different optical terminals, such as optical emitting terminals, relay terminals and demodulation terminals, can be customized.



●Optical Emitting Terminals

Base on scanning semiconductor laser, it can generate optical signal with high wavelength accuracy, stable power and fast scanning speed, widely used in optical communication systems.

●Optical Relay Terminals

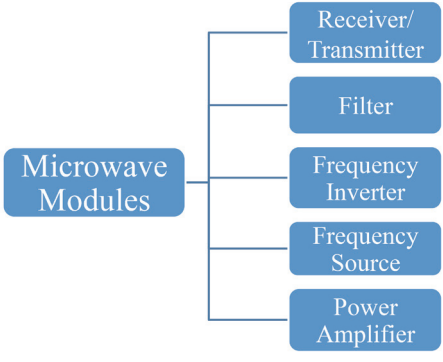
It can receive weak optical signals and convert into electrical signals through detector, then regenerated or enlarged electrical signals are used to generate stronger optical signals. So energy loss, signal distortion and noise effect can be compensated in long distance optical communication system.

●Optical Demodulation Terminals

Integrated with semiconductor laser, electro-optic detection and signal processing circuit, it can realize high resolution demodulation of high-speed optical signal and features well temperature stability.

Microwave Modules

According to customers' requirements, a wide range of customized microwave modules can be developed.



●Receiver/Transmitter

Multiple frequency microwave receivers and transmitters adopting optimal circuit structure.

●Power Amplifier

High efficiency power amplifier.

●Filter

Various filter including integrated LC, dielectric and cavity filter.

●Frequency Source

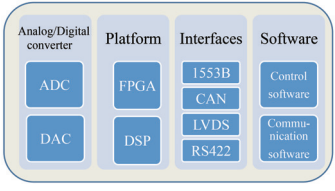
Point frequency and PLL frequency synthesizer.

●Frequency Inverter

Multiple frequency up-converters and down-converters with fine pass-band performance.

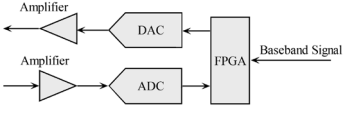
Signal Processing Modules

According to customers' requirements, different quality grade signal processing modules with IF analog interface and relavant softwares can be provided.



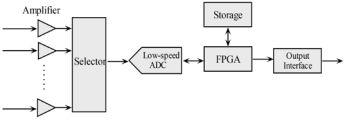
●Signal Processing Module with FPGA

According to customers' requirements, digital IF signals from ADC can be demodulated, descrambled, decoded and baseband signals encoded, scrambled and modulated by FPGA can be carried out through DAC.



●Data Acquisition Module with FPGA

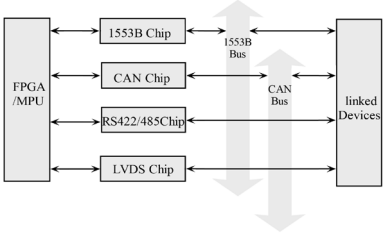
According to customers' requirements, multi-channel analogy or digital data can be acquired through low-speed ADC controlled by FPGA. The data can be stored or carried out through special interfaces.



Signal Processing Modules

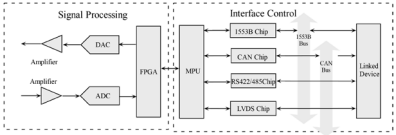
●Interface Control Module with FPGA/MPU

According to customers' requirements, interfaces including 1553B Bus, CAN Bus, LVDS and RS422/485 can be customized by FPGA/MPUs to complete bidirectional communication with exterior linked devices.



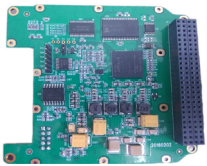
●Multiple Function Module with FPGA+MPU

According to customers' requirements, multiple functions including signal processing and interface control can be integrated through FPGA and MPU.

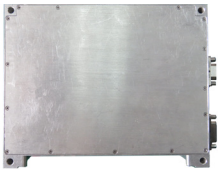


●Products

Ground signal processing module with 1553B and RS422 interface



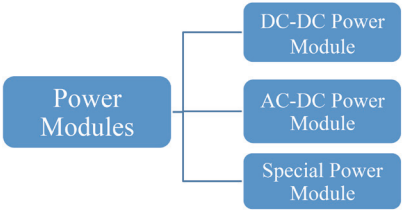
CubeSat signal processing module



Spaceborne signal processing module with CAN and LVDS interface

Power Modules

According to customers' requirements, a wide range of customized power modules can be developed.



●DC-DC Power Module

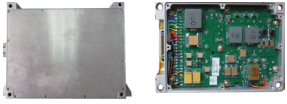
According to customers' requirements, different quality grade from technical-grade to aerospace-grade can be customized with wide input voltage range (5.5~400VDC), isolated output and wide output power range (1W~2000W).

●AC-DC Power Module

According to customers' requirements, different quality grade from technical-grade to aerospace-grade can be customized with wide input voltage range (85~265VAC), isolated output and wide output power range (1W~2000W).

●Special Power Module

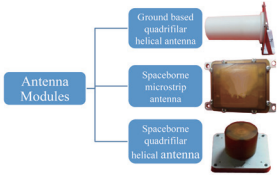
According to customers' requirements, high-reliability power modules with isolated/ non-isolated multiple channel output, resisting surge, EMI filter and on-off control can be developed.



Satellite-borne Special Power Module

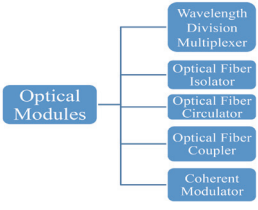
Antenna Modules

According to customers' requirements, various optimal antennas can be designed and produced.



Optical Modules

According to customers' requirements, a wide range of customized optical modules in optical communication system can be developed.



● Wavelength Division Multiplexer

Low loss transmission of long wave path signals with different wavelengths.

● Optical Fiber Isolator

Customized isolator with low loss, high isolation, high extinction ratio and high environmental stability.

● Optical Fiber Circulator

High performance optical module, low loss transmission of optical signals at communicating port, isolation at non identical port.

● Optical Fiber Coupler

Allow the input light to be split in different proportions, and the polarization extinction ratio of the output light can be ensured.

● Coherent Modulator

Integrated with QPSK modulator and polarization beam combiner, high-speed modulation on two polarization states.

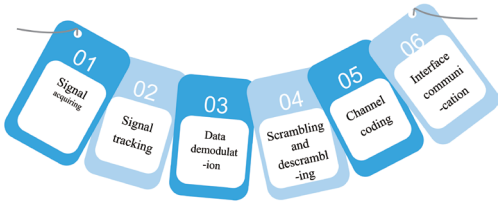
Customized Chips

We provide a wide range of chips by the requirements of function and performance.

- Power Chip
- Channel Coding/Decoding Chip
- Modulation/Demodulation Chip
- Scrambling/Descrambling Chip
- Interface Control Chip

Customized Software

We provide software development service and adaption on different hardware by the requirements of function and performance.



① Searching and locking target signals;

② Real-timely tracking target signals;

③ Extracting effective data from multiple modulated signals;

④ Scrambling or descrambling effective data;

⑤ Convolutional code, concatenated code, Turbo and LDPC code CCSDS recommended;

⑥ Various bus, synchronous and asynchronous serial interface communication.

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