TL900D-/S/X/Ku series Digital Microwave Transmission System

System introduction:

TL900D-X/Ku series digital microwave transmission system is designed through our several years of research and development on microwave transmitting equipments, which Adopt digital code compression, digital modulation and digital microwave technology, supporting MPEG-2, DVB-S and DVB-C standard X band (8GHz/ 11GHz) digital microwave transmission system

Application field:

This system is mainly applied to transmit digital microwave signal in complex electromagnetic environment, like the transmission from the machine room to the lauching tower. And it is the common point-to-point digital microwave transmission system used in domestic to transmit signals of high-quality television, broadcast, data and telephone traffic

Function and Features:

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1. Adopt QPSK and QAM standards to modulate, the quality of the program is good, with large transmitting capacity and long transmitting distance, high utilization rate, good anti-interference ability and safety
2. Be able to transmitting 6 11 series more digital TV signal
3. Also can relay with the same or different frequency, or use digital regenerated relay transmission to eliminate C/N cumulative error.
4. Meeting the standards of the broadcasting customers, support flat protocol and end-to-end compatibility, high cost performance

System component:

Transmitting part:
Including MPEG-2 compression coder, multiplexer, QAM/APSK modulator, digital microwave transmitter and antenna feed system.
Relaying part:
With two types: regenerative repeater and non-regenerative repeater. The regenerative repeater can be used when the multiple hop transmission signal is degraded with some degrees or there is need to increase or decrease programs; but the non-regerative repeater just modulates the IF; it further includes digital broad band receiver/transmitter, IF processor, distributer and antenna feed system.
Receiving part
Including microwave digital receiver, IF processor/ distributor, and digital television terminal equipment for rectifying, demultiplexing and decompressing

Main Technology Index:

standard	international standard ISO 11172(MPEG-1)ISO13818(MPEG-2)
output code rate	1~20Mbps
audio	support stereo or double sound channels input 64~384Kbps
input interface	A1/A2/V,SDI,AES/EBU
output interface	ASI、SPI optional

MPEG-2 Compressor and Encoder

Multiple channel muxplexor MUX)

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Input interface	ASI, BNC, 75Ω, and else optional
Code rate	Maximum 214Mbps
Output interface	ASI, BNC, 75Ω, and else optional
Code rate	Maximum 214Mbps

Digital microwave sender

Output frequency	S band/2.3~2.8GHz, Xband/7.7~8.75GHz, Ku band/10.7~13.25GHz
Output power	S(1W~100W),X(200W~20W),Ku(200mw~20w)
Local oscillation stability	±500Hz
Local oscillation phase noise	≤-105dBc/Hz@10KHz
Input medium frequency	70MHz, 48~860MHz, 950~2150MHz

Digital microwave receiver

Input frequency	S band/2.3~2.8GHz,X band/7.7~8.75GHz,Ku band/10.7~13.25GHz
Output frequency	70MHz, 48~860MHz, 950~2150MHz
Noise figure	2dB
Local oscillation stability	±500Hz
Local oscillation phase noise	≤-105dBc/Hz@10KHz

Digital receiver

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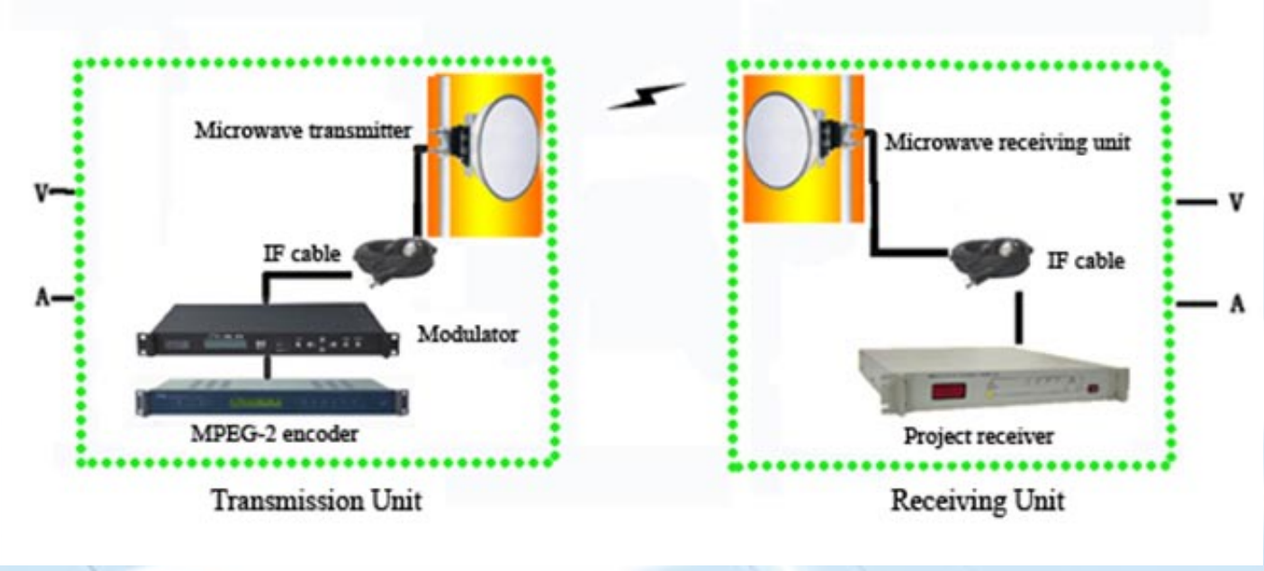
input frequency	48~860MHz, 9500~2150MHz
Input interface	FL10/75Ω
Output video	1Vp-p/75Ω
Output audio	0dBm/600Ω
Digital interface	ASI, SDI, SPI optional, audio AES/EBU optional

System block diagram



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