



Fibre Optic Transmission Systems

Ridgemount supports the Ifotec range of products throughout the UK and Ireland. Ifotec have an experienced team of creative engineers that are able to offer the optimum solution for transmitting Video, Voice, Audio, Data and RF signals over fibre.

Standard products are available for the Telecom, ADSL, CATV, CCTV and Military markets along with custom solutions for a variety of applications including transmitting bandwidth above 2GHz on each wavelength over distances in excess of 100km.

Ifotec combine FDM (Frequency Division Multiplexing), WDM (Wavelength Division Multiplexing) and TDM (Time Division Multiplexing) technologies to take full advantage of optical fibre's bandwidth.



ShieldLITE Security

Applications: Access Alarm, Remote Access, Network Isolation & Shut Down Systems.
 Optical Fibre: Transmission of monitoring signals over singlemode fibre.
 Trap Systems: Attenuation and Reflection Systems with a wide range of switches and sensors.

Video Systems

Applications: Surveillance, Video Networks and High quality Video Broadcasting.
 Optical Fibre: Transmission of video signals on multimode or singlemode fibre.
 Transmission: Analogue (Baseband) or Digital.
 Signal Types: PAL, SECAM, NTSC, 4:2:2 and RGB.

Data Systems

Applications: Ethernet LAN Extensions, MAN, Industrial networks etc.
 Optical Fibre: Transmission of data signals on multimode or singlemode fibre.
 Transmission: Analogue (Baseband) or Digital.
 Signal Types: ECL, TTL, RS232, RS422, RS485, and HDB3. Data Rates up to 2.5Gbits/s

Audio Systems

Applications: Broadcasting, Intercom, Studio High Quality Networks etc.
 Optical Fibre: Transmission of audio signals on multimode or singlemode fibre.
 Transmission: Analogue (Baseband) or Digital.
 Signal Types: Balanced/Unbalanced, Nominal Level 0.7Volts RMS, AM - FM or Digital Modulation
 Bandwidth at -3dB: 20Hz - 20kHz, Input Impedance 4.7K Ohms to 600 Ohms.

RF over Fibre

Applications: L- Band Satellite Transport Links, GSM & UMTS Mobile Remote Antenna, RF Dist.
 Optical Fibre: Transmission of RF signals on multimode or singlemode fibre.
 Transmission: Analogue (Baseband) or Digital.
 Signal Types: Radio Frequency range up to 2.3GHz; Input/Output Impedance 50 or 75 Ohms;
 Alarms: Dry Contacts.



Frequency Division Multiplexing involves the transposition of the signals to the carrier frequency and then transmission of the combined carriers over a single fibre. IFOTEC manufacture both point to point and add-drop FDM equipment. Up to 8 video signals can be combined on a single fibre at the same location or added separately on route.

Wavelength Division Multiplexing is implemented in the optical layer and can be combined with TDM and FDM technologies. The combination of FDM and DWDM (Dense WDM) allows the transmission of 64 baseband video signals on a single fibre. IFOTEC manufacture WDM systems using 780nm, 850nm, 1310nm & 1550nm windows and DWDM systems in the 1530nm - 1565nm window.



Time Division Multiplexing involves the digital conversion of the signal and data serialization and synchronization to transmit the bit stream over the fibre. IFOTEC manufacture TDM systems to combine 4 video channels with multiple audio and data channels on a single fibre. TDM products use frame that can be filled with 8, 10 or 12 bit high quality video signals, digital audio stereo signal and many types of data signals.