

4 digital TV channels in one analog channel on existing analog RRL

For countries with large extension of existing analogue radio-relay lines the modernization of these lines for data transmission seems to be the most simple and cheap way to provide the transfer of the telecommunication network to digital methods of transmission and processing of information.

Existing analogue radio-relay UHF equipment with frequency modulation may be easily applied for 34 Mbps and 51 Mbps (STM0) data transmission.

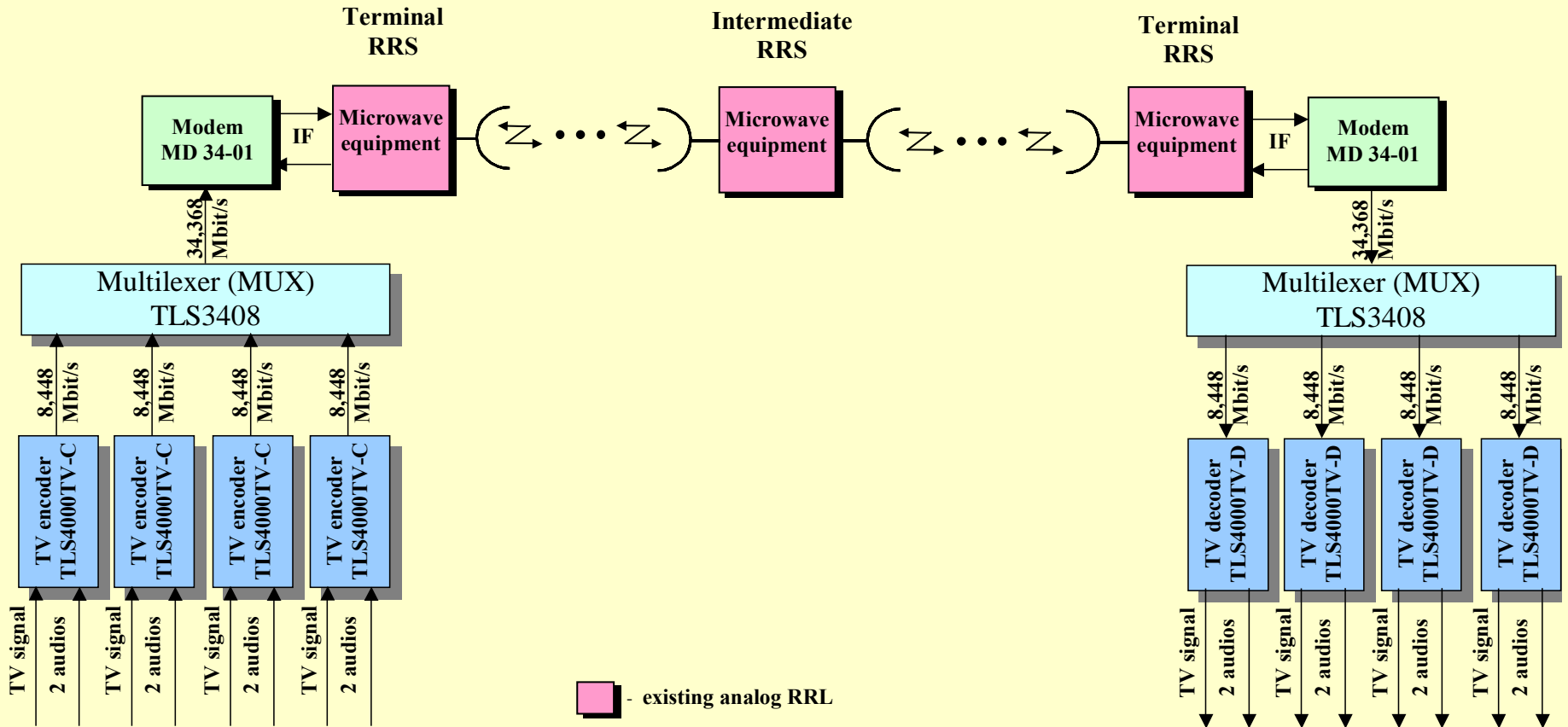
Our specialists have vast experience in transmitting 34 Mbps data streams via existing radio-relay channels. In course of corresponding modernization only terminal equipment is to be replaced. Our solutions allow to retain existing control, protection switch and service communication systems without any alterations and create hybrid analogue - digital telecommunication systems with common protection channel on the basis of existing analogue radio – relay systems. Such approach allows to develop digital network step by step in case of lack of investments.

34 Mbps digital modems and digital TV encoders will allow You to transmit up to 4 TV programs via one analogue radio – relay channel. Released channels also may be used for data transmission.

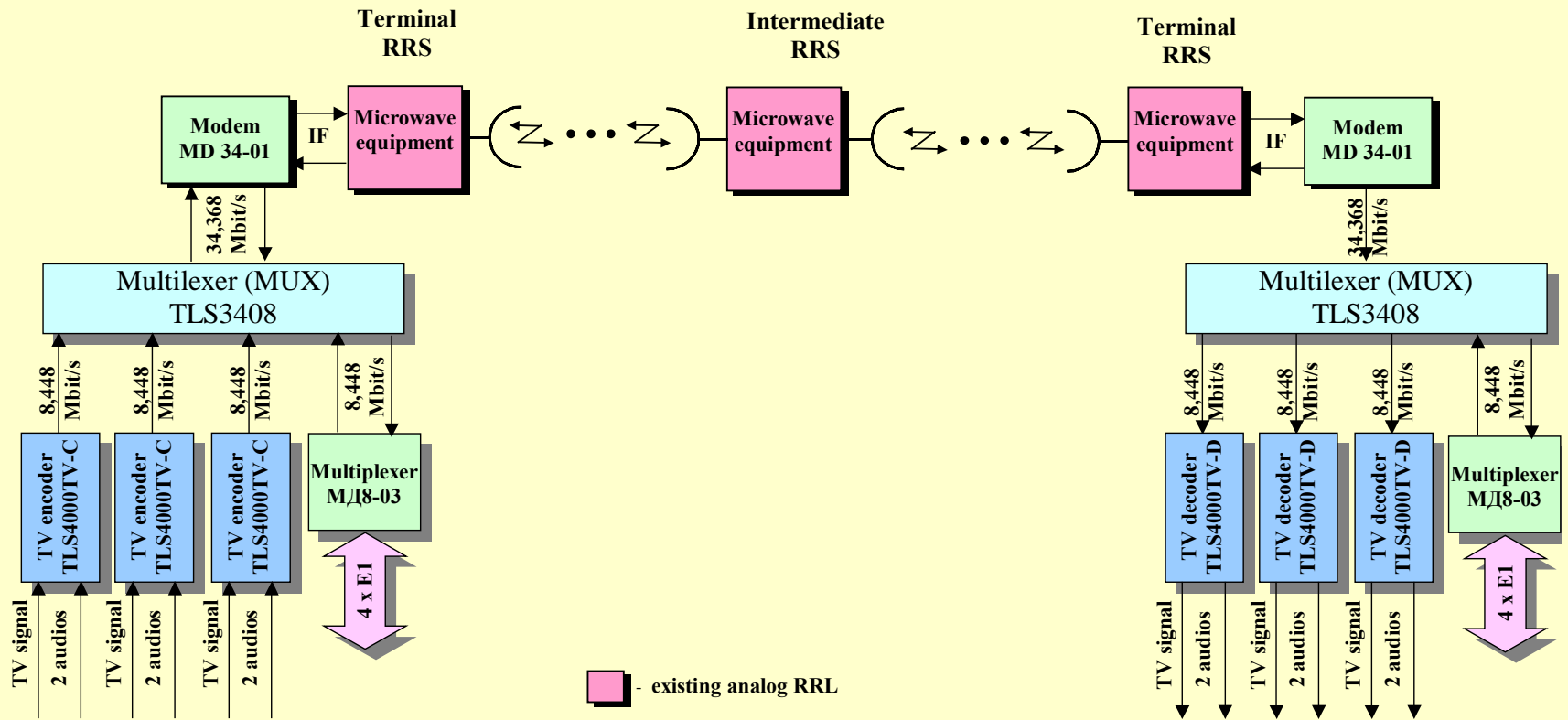
Our solution provide:

- Savings of costs in course of organizing 34Mbps and 51 Mbps (STM-0) data transmission channels
 - Creating hybrid analogue – digital radio – relay systems
- Step by step development of digital network in case of lack of investments
- Common protection switch for analogue and digital channels
 - Heatless switch of digital channels
 - Transmission of up to 4 TV programs via one analogue radio – relay channel
 - Retaining of existing control, protection switch and service communication systems
 - Transmission of 2 Mbps or 2x2 Mbps data streams together with analogue telephony or TV via analogue radio – relay channel

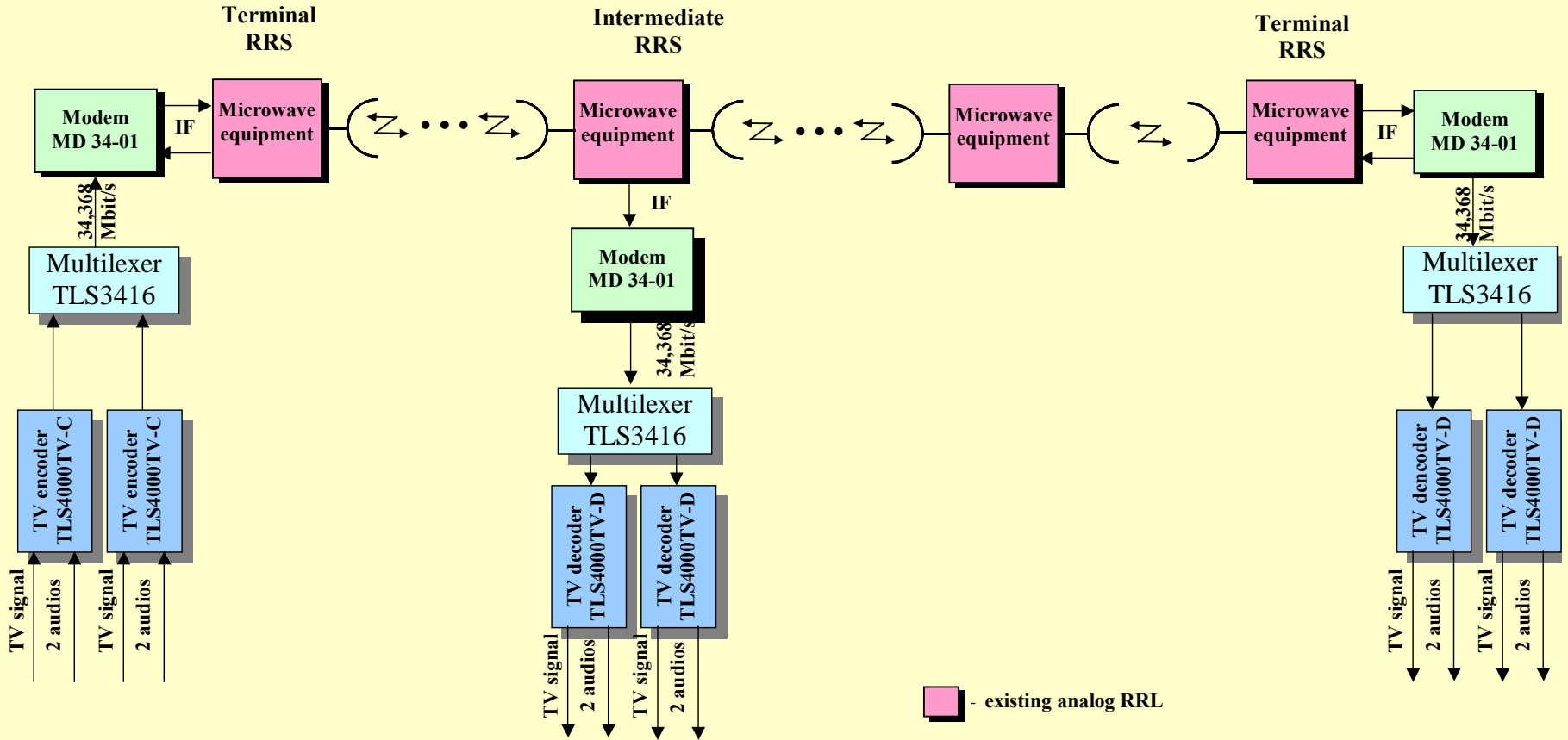
Block-diagram of 4 TV signals transmission via the 34,368 Mbit/s digital channel



Block-diagram of 3 TV signals + 4x2,048 Mbit/s data streams transmissions via the 34,368 Mbit/s digital channel

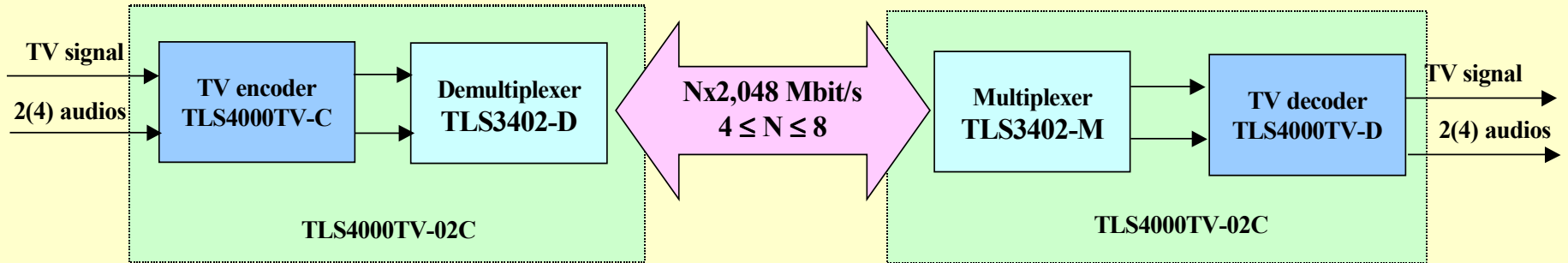


Block-diagram of 2 TV signals transmission via the 34,368 Mbit/s digital channel

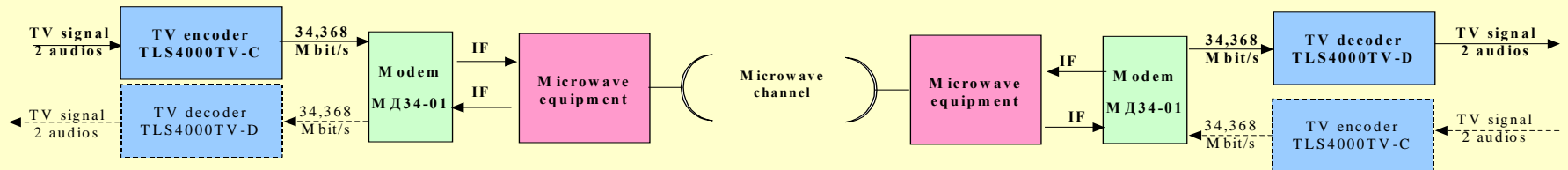


Block-diagram of TV signal transmission with inverse multiplexing.

Option: $N \times 2,048$ Mbit/s; $4 \leq N \leq 8$.

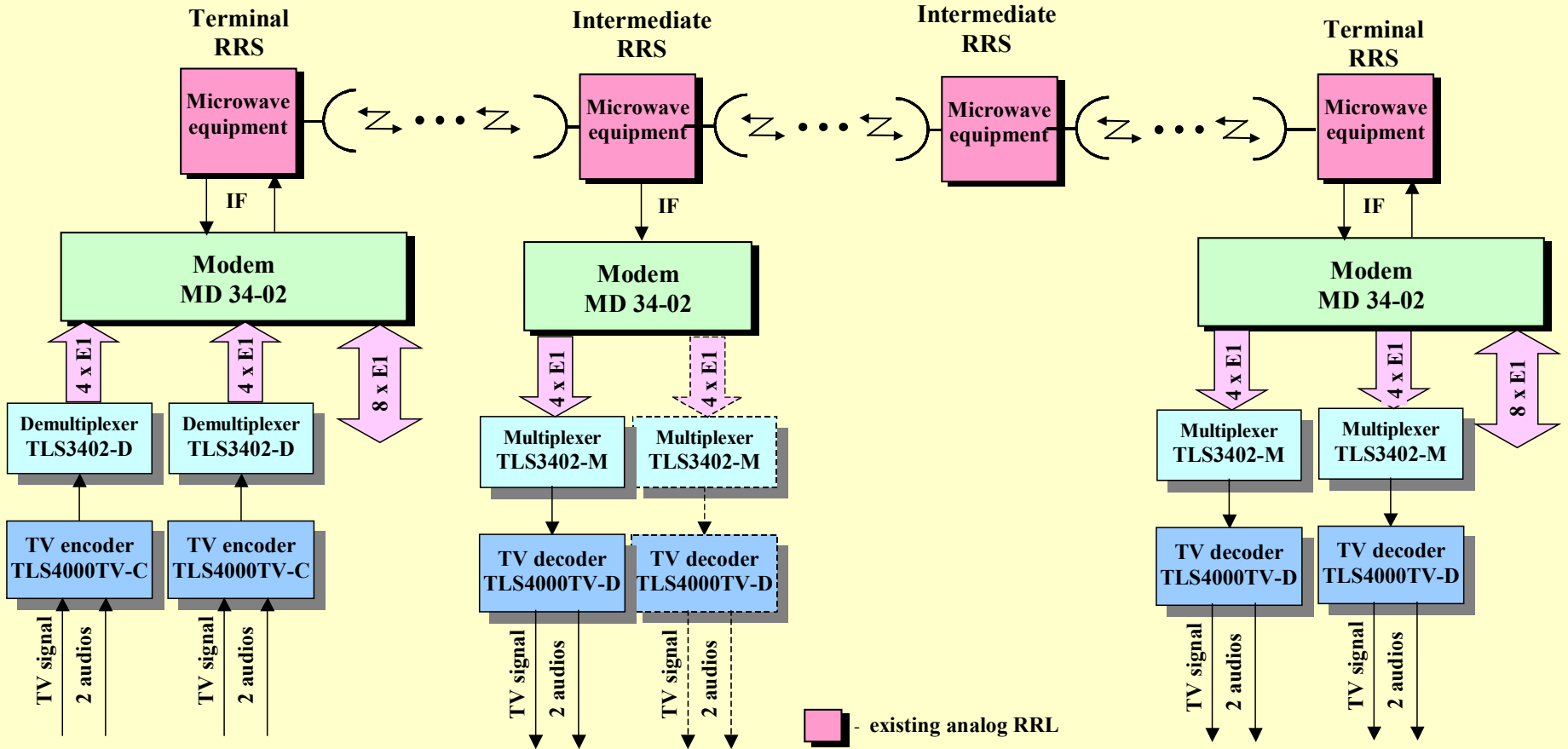


Block-diagram of TV signals transmission at a rate 34,368 Mbit/s



Block-diagram of TV signals transmission with inverse multiplexing.

Option: $N \times 2,048$ Mbit/s; $N = 4 \dots 8$



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