**MPEG and DVB-T Acronyms**

((just a *few* to get you started... de KØPFX))

**BER** - Bit error ratio. Ratio between nbr of bits in error and total nbr transmitted

**B-frame** - Bi-Directional predicted frame coded with respect to I and P frames

**CAT** - Conditional Access Table - A Transport Stream table that lists the PID values.

**DVB-T** - Digital Video Broadcasting - Terrestrial - European Television Standard

**EPG** - Electronic Program Guide - *Note:* not used in DVB-T

**ES** - Elementary Stream Generated by the video or audio encoder (

**FEC** - Reed Solomon RS(204, 188, T=8) Convolutional Interleaving follows RS

 Manipulates the data prior to transmission before any errors are introduced.

**GOP -** Group of Pictures. Term used in MPEG compression.

**H.264** - Advanced codec for video compression, open, licensed industry standard

**I-frame** - Intra frame. Coded w/respect to no other frames but themselves

**ISI** - Inter-symbol interference causing overlapping of successive symbols

**MER** - Modulation Error Ratio 40 dB is good 34dB is poor, DATV 25 is pretty good

**MPEG** - Moving pictures expert group that sets standards for video and audio

**OFDM -** Orthogonal frequency division multiplex. Used by DVB to transmit data.

**OSD** - On screen display. Graphics displays of menus and images on the TV screen

**Orthogonality** - Complete independence of two or more signals (as in OFDM).

**P-frame** - Predicted frame coded w/respect to I and P frames that preceded them

**PAS -** Program association section. These make up the PSI tables in DVB.

**PAT** - Program Allocation Table - Always present and carried by the packets PID

**PCR** - Program Clock Reference

**PES**- Packetized Elementary Streams - Program stream may have one or more PES

**PID** - Packet Identifier PES ID number. Defines a particular elementary stream.

**PILOT** = Carriers used for implementation correction processes at the receiver.

**PMT** - Program Map Table - One for each program present in the multiplex

**PSI -** Program Specific Information - Defined by tables from the PES streams

**PTS** - Presentation Time Stamp - Sync audio and video

**PU** - Presentation Units

**Puncturing** - A method to reduce the amount of redundant data.

**QPSK** - Quadrature phase shift keying. A modulation technique using 4 different

 phases to encode information.

**QAM** - Input symbols converted into 2 signals - I (in-phase) and Q (quadrature)

 then to D/A. Output represents constellation and modulates the TX

 Modulated using IFFT which converts data from the time to freq domain

**QEF** = Quasi error free. Comm channel that limits errors to around 1 in 1010 bits

 Transmitted. DBV-T requires a QEF channel = reason for FEC.

**RS** - Reed-Solomon. BTL scientists developed error correction techniques for data

**RST** - Running status table. A DVB table allows updates of timing status.

**S/N or SNR** = Signal to noise ratio in dB. Higher the better signal received.

**TP** = Transport packets used to transmit ES’s by splitting them up into packets.

**TPS** - Transmission Parameter Signaling Parameters of the transmission scheme

**Data Streams**

Analog NTSC camera 168 Mbits/sec uncompressed

NTSC MPEG-2 is 2-3 Mbits/sec compressed (**N**ational **T**V **S**ys **C**ommittee)

HDTV Camera 1-1.5 Gbits/sec uncompressed

HDTV MPEG-2 15-60 Mbits/sec compressed

HDTV MPEG-4 12-20 Mbits/sec compressed