

# The libdvbv5

**Mauro Carvalho Chehab**  
**Linux Kernel Expert**  
**Samsung Open Source Group**

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# DVBv3 versus DVBv5 API

## DVBv3 API

```
struct dvb_qpsk_parameters; // DVB-S
struct dvb_qam_parameters; // DVB-C
struct dvb_vsb_parameters; // ATSC
struct dvb_ofdm_parameters; // DVB-T
struct dvb_frontend_parameters {
    __u32 frequency;
    e_spectral_inversion_t inversion;
    union {
        struct dvb_qpsk_parameters qpsk;
        struct dvb_qam_parameters qam;
        struct dvb_ofdm_parameters ofdm;
        struct dvb_vsb_parameters vsb;
    } u;
};
```

## DVBv5 API

```
DTV_DELIVERY_SYSTEM = DVBT
DTV_FREQUENCY = 514000000
DTV_BANDWIDTH_HZ = 8000000
DTV_CODE_RATE_HP = 2/3
DTV_CODE_RATE_LP = NONE
DTV_MODULATION = QAM/16
DTV_TRANSMISSION_MODE = 8K
DTV_GUARD_INTERVAL = 1/4
DTV_HIERARCHY = NONE
DTV_INVERSION = AUTO
DTV_TUNE
```

Properties and their values vary,  
depending on the delivery system

# Userspace library: Libdvbv5

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- Uses DVBv5 property sets;
- Work with all DTV standards with fallback capabilities since DVB v3.2;
- Have functions to find the TV services (“channels”) on MPEG-TS;
- Currently, used by DVBv5 utils, tvdaemon and Kaffeine;
- API stabilized and fully documented on v4l-utils V.1 .6.0 (Oct, 5 2014)
- allows setting parameters related to the satellite system;
- provides a way to receive the DVBv5 enhanced statistics if available;
- It provides several MPEG-TS table decoders needed to get the DVB/ISDB/ATSC/.. program information;
- Provides functions to read files with channel/program properties;
- Provides extra statistics: signal quality, BER and PER measurements, ...

# The libdvbv5

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Doxygen files:

- Local version: <file:///devel/v4l/v4l-utils/doxygen-doc/html/index.html>
- Online version: <http://linuxtv.org/docs/libdvbv5/index.html>