## 1) Tuner Programming

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There are some flavors of Tuner programming APIs. These differ mainly by the bandswitch byte.

```
L= LG_API (VHF_L0=0x01, VHF_HI=0x02, UHF=0x08, radio=0x04)
P= PHILIPS_API (VHF_L0=0xA0, VHF_HI=0x90, UHF=0x30, radio=0x04)
T= TEMIC_API (VHF_L0=0x02, VHF_HI=0x04, UHF=0x01)
A= ALPS_API (VHF_L0=0x14, VHF_HI=0x12, UHF=0x11)
M= PHILIPS_MK3 (VHF_L0=0x01, VHF_HI=0x02, UHF=0x04, radio=0x19)
```

## 2) Tuner Manufacturers

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```
SAMSUNG Tuner identification: (e.g. TCPM9091PD27)
  TCP [ABCJLMNQ] 90[89][125] [DP] [ACD] 27 [ABCD]
 [ABCJLMNQ]:
   A = BG + DK
   B = BG
   C = I + DK
   J= NTSC-Japan
   L= Secam LL
   M = BG + I + DK
   N= NTSC
   Q = BG + I + DK + LL
 [89]: ?
 [125]:
   2: No FM
   5: With FM
 [DP]:
   D= NTSC
   P = PAL
 [ACD]:
   A= F-connector
   C= Phono connector
   D= Din Jack
 [ABCD]:
   3-wire/I2C tuning, 2-band/3-band
 These Tuners are PHILIPS_API compatible.
Philips Tuner identification: (e.g. FM1216MF)
  F[IRMQ]12[1345]6\{MF|ME|MP\}
  F[IRMQ]:
   FI12x6: Tuner Series
   FR12x6: Tuner + Radio IF
   FM12x6: Tuner + FM
   FQ12x6: special
  FMR12x6: special
TD15xx: Digital Tuner ATSC
12[1345]6:
   1216: PAL BG
   1236: NTSC
   1246: PAL I
   1256: Pal DK
  \{MF \mid ME \mid MP\}
```

```
Tuners..txt
   MF: BG LL w/ Secam (Multi France)
   ME: BG DK I LL
                     (Multi Europe)
   MP: BG DK I
                     (Multi PAL)
   MR: BG DK M (?)
   MG: BG DKI M (?)
  MK2 series PHILIPS_API, most tuners are compatible to this one !
  MK3 series introduced in 2002 w/ PHILIPS MK3 API
Temic Tuner identification: (.e.g 4006FH5)
   4[01][0136][269]FLHYNRJ5
    40x2: Tuner (5V/33V), TEMIC_API.
    40x6: Tuner 5V
    41xx: Tuner compact
40x9: Tuner+FM compact
   [0136]
    xx0x: PAL BG
    xx1x: Pal DK, Secam LL
    xx3x: NTSC
    xx6x: PAL I
   F[HYNR]5
    FH5: Pal BG
    FY5: others
    FN5: multistandard
    FR5: w/ FM radio
   3X xxxx: order number with specific connector
  Note: Only 40x2 series has TEMIC API, all newer tuners have PHILIPS API.
LG Innotek Tuner:
  TPI8NSR11 : NTSC J/M
                            (TPI8NSR01 w/FM)
                                               (P, 210/497)
  TPI8PSB11 : PAL B/G
                            (TPI8PSB01 w/FM)
                                               (P, 170/450)
  TAPC-I701 : PAL I
                            (TAPC-I001 \text{ w/FM})
                                               (P, 170/450)
  TPI8PSB12 : PAL D/K+B/G
                            (TPI8PSB02 w/FM)
                                               (P, 170/450)
  TAPC-H701P: NTSC JP
                            (TAPC-H001P w/FM)
                                               (L, 170/450)
  TAPC-G701P: PAL B/G
                            (TAPC-G001P w/FM)
                                               (L, 170/450)
  TAPC-W701P: PAL I
                            (TAPC-W001P w/FM)
                                               (L, 170/450)
  TAPC-Q703P: PAL D/K
                            (TAPC-Q001P \text{ w/FM}) (L, 170/450)
  TAPC-Q704P: PAL D/K+I
                            (L, 170/450)
  TAPC-G702P: PAL D/K+B/G (L, 170/450)
  TADC-H002F: NTSC (L, 175/410?; 2-B, C-W+11, W+12-69)
  TADC-M201D: PAL D/K+B/G+I (L, 143/425) (sound control at I2C address 0xc8)
  TADC-T003F: NTSC Taiwan (L, 175/410?; 2-B, C-W+11, W+12-69)
  Suffix:
    P= Standard phono female socket
    D= IEC female socket
    F= F-connector
Other Tuners:
TCL2002MB-1 : PAL BG + DK
                                  =TUNER LG PAL NEW TAPC
TCL2002MB-1F: PAL BG + DK w/FM =PHILIPS PAL
TCL2002MI-2 : PAL I
                                  = ??
```

ALPS Tuners:
 Most are LG\_API compatible
 TSCH6 has ALPS\_API (TSCH5 ?)
 TSBE1 has extra API 05,02,08 Control\_byte=0xCB Source:(1)
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Lit. (1) conexant100029b-PCI-Decoder-ApplicationNote.pdf