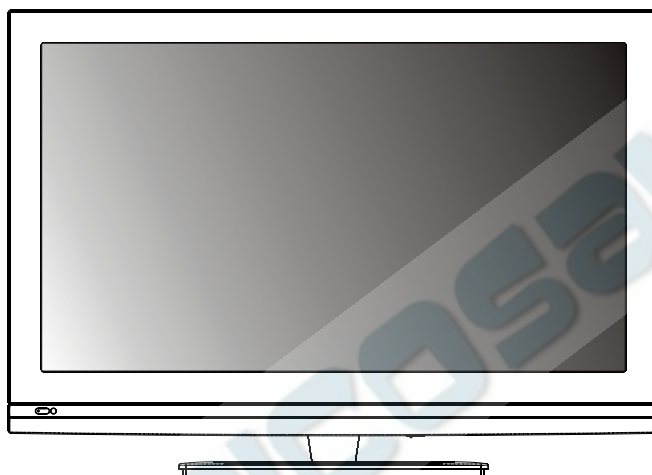


# SERVICE MANUAL

## 8M19B CHASSIS



Design and specifications are subject to change without prior notice.  
(Only Reference)

SIZE:A5

|                                   |                 |
|-----------------------------------|-----------------|
| Description: SERVICE MANUAL 8M19B |                 |
| MODEL.                            | Brand Name:     |
| JOB NO.                           | SKYWORTH        |
| Engineering Dept:                 |                 |
| Artwork By:                       | Date: 2011-5-13 |
| Checked By:                       | Date:           |
| Approved By:                      | Date:           |

# Content

---

Content-----2

Technical Specification-----3-13

8M19 Block Diagram of Latam-----14

List of key parts-----15

IC BLOCK Diagram-----16-26

MAIN PCB-TOP-----27

MAIN PCB-BOT-----28

Circuit Diagrams-----29-37

# Technical Specification

---

## 1.Application Area:

This product standard is used for LCD 8M19B chassis.

## 2.Specification:

All the standard are measured under following conditions without other specification.

2.1 Ambient Temperature:20+/-5°C

2.2 Relative Humidity:65+/-10%

2.3 Power Supply Voltage: Standard Input Voltage(100V~240Vac 50/60Hz)

2.4 Adjust after 20 minutes warm-up.

## 3.Test and check method:

3.1 Capability:According to nation test standard

3.2 Safety:\_\_\_\_\_ standard

EMC:\_\_\_\_\_ standard

# Technical Specification

4

## Safety and Regulation

| No  | Item                                     | Min | Typ  | Max | Unit       | Remark                  |
|-----|------------------------------------------|-----|------|-----|------------|-------------------------|
| 1.  | Force Stability – Incline Plane Tip Test |     | 10   |     | deg        |                         |
| 2.  | Force Stability – Level Tip Test         |     | 100  |     | N          |                         |
| 3.  | Isolation Gap, AC-AC/ AC-DC              | 3   |      |     | mm         |                         |
| 4.  | Isolation Gap                            | 6   |      |     | mm         |                         |
| 5.  | Power Consumption, Max                   |     |      | 80  | W          | For 32LED               |
|     |                                          |     |      |     | W          |                         |
|     |                                          |     |      |     | W          |                         |
| 6.  | Power Consumption, Stand by              |     |      | 1   | W          |                         |
| 7.  | Dielectric Voltage                       | 3   |      |     | kV         |                         |
| 8.  | Isolation Resistance                     | 4   |      |     | M $\Omega$ |                         |
| 9.  | Leakage Current                          |     | 5    |     | mApp       |                         |
| 10. | Power Cord Captivity                     |     | 40   |     | N          |                         |
| 11. | Flammability – Back Cover                |     | PASS |     |            |                         |
| 12. | Sharp Edge                               |     | PASS |     |            |                         |
| 13. | UL Compliance                            |     | NO   |     |            |                         |
| 14. | FCC Compliance                           |     | NO   |     |            |                         |
| 15. | CDRH Radiation Compliance                |     | NO   |     |            |                         |
| 16. | CSA Compliance                           |     | NO   |     |            |                         |
| 17. | CEB Compliance                           |     | NO   |     |            | Base on different order |
| 18. | CE Compliance                            |     |      |     |            |                         |
| 19. | CB Compliance                            |     | YES  |     |            |                         |

5.

## Video

| No | Item                                              | Min | Typ | Max | Unit              | Remark    |
|----|---------------------------------------------------|-----|-----|-----|-------------------|-----------|
| 1. | Linearity Distortion, Vertical                    |     | 1   |     | %                 |           |
| 2. | Linearity Distortion, Horizontal                  |     | 1   |     | %                 |           |
| 3. | Trapezoidal Distortion, Vertical                  |     | 1   |     | %                 |           |
| 4. | Trapezoidal Distortion, Horizontal                |     | 1   |     | %                 |           |
| 5. | Over Scan, Vertical                               | 90  | 93  | 95  | %                 |           |
| 6. | Over Scan, Horizontal                             | 90  | 93  | 95  | %                 | FOR 32LED |
| 7. | Brightness, Maximum                               |     |     | 340 | cd/m <sup>2</sup> | FOR 32LED |
|    |                                                   |     |     |     | cd/m <sup>2</sup> |           |
|    |                                                   |     |     |     | cd/m <sup>2</sup> |           |
| 8. | Video Noise Limited<br>Sensitivity(@S/N=30db) VHF |     |     | 51  | dBV               |           |
| 9. | Video Noise Limited<br>Sensitivity(@S/N=30db) UHF |     |     | 54  | dBV               |           |

# Technical Specification

|     |                       |      |      |  |       |                |
|-----|-----------------------|------|------|--|-------|----------------|
| 10. | Selectivity -1.5M     | 35   |      |  | dB    |                |
| 11. | Selectivity +8M       | 40   |      |  | dB    |                |
| 12. | Tuning Range          | -0.7 |      |  | MHz   |                |
| 13. | Resolution Horizontal |      | 1366 |  | Lines | 1920 For 42LED |
| 14. | Resolution Vertical   |      | 768  |  | Lines | 1080 For 42LED |

## 6. Chroma

| No | Item                             | Min    | Typ  | Max   | Unit | Remark                                               |
|----|----------------------------------|--------|------|-------|------|------------------------------------------------------|
| 1. | White Balance, X axis            |        | 280  |       |      |                                                      |
| 2. | White Balance, Y axis            |        | 290  |       |      |                                                      |
| 3. | White Balance, Color Temperature | 6500   | 9300 | 13000 | kdeg | 13000kdeg(268,273)<br>9300(281,311)<br>6500(313,329) |
| 4. | Color Sensitivity                |        | 30   |       | dB   |                                                      |
| 5. | Color Burst Lock-in Range        | +/-300 |      |       | Hz   |                                                      |
| 6. | Color Killer Sensitivity         |        | 30   |       | dBuv |                                                      |

## 7. Audio

| No  | Item                                   | Min | Typ | Max | Unit | Remark |
|-----|----------------------------------------|-----|-----|-----|------|--------|
| 1.  | Audio Noise Limited Sensitivity, VHF-L |     | 25  |     | dBuv |        |
| 2.  | Audio Noise Limited Sensitivity, VHF-H |     | 25  |     | dBuv |        |
| 3.  | Audio Noise Limited Sensitivity, UHF   |     | 28  |     | dBuv |        |
| 4.  | Buzz (S/N Ratio)                       |     | 40  |     | dB   |        |
| 5.  | Distortion                             |     | 3   |     | %    |        |
| 6.  | Audio Output, L/R, at 10% THD          |     | 5   |     | W    |        |
| 7.  | Audio Output, Center                   |     | 5   |     | W    |        |
| 8.  | Stereo Separation                      |     | 21  |     | dB   |        |
| 9.  | Speaker Impedance                      |     | 8   |     | ohm  |        |
| 10. | Speaker Power Rating                   |     | 8   | 12  | W    |        |

# Technical Specification

---

## 8. Power

| No | Item                 | Min | Typ | Max | Unit | Remark |
|----|----------------------|-----|-----|-----|------|--------|
| 1. | DC Voltage, Audio    |     | 12  |     | V    |        |
| 2. | DC Voltage, Tuner(5) |     | 5   |     | V    |        |

## 9. External Interface

| No  | Item                            | Min | Typ | Max   | Unit | Remark |
|-----|---------------------------------|-----|-----|-------|------|--------|
| 1.  | Video Input Level               |     | 1   |       | Vpp  | 75 OHM |
| 2.  | Video Input Frequency Response  | 4.5 |     |       | MHz  |        |
| 3.  | Video Input S/N                 |     | 40  |       | dB   |        |
| 4.  | Audio Input Level               |     | 0.5 |       | Vrms |        |
| 5.  | Audio Input Frequency Response  |     |     | 15    | kHz  |        |
| 6.  | Audio Input S/N                 |     | 40  |       | dB   |        |
| 7.  | Audio Input Distortion          |     | 3   |       | %    |        |
| 8.  | Audio Input Dynamic Range       |     |     | 2     | V    |        |
| 9.  | Video Output Level              |     | 1   |       | Vpp  |        |
| 10. | Video Output Frequency Response |     | 4.2 |       | MHz  |        |
| 11. | Video Output S/N                |     | 50  |       | dB   |        |
| 12. | Audio Output Level              |     | 0.5 |       | Vrms |        |
| 13. | Audio Output Frequency Response | 80  |     | 12000 | Hz   |        |
| 14. | Audio Output S/N                |     | 40  |       | dB   |        |
| 15. | Audio Output Distortion         |     |     |       | %    |        |

# Technical Specification

|     |                                                                   |  |      |  |       |                |
|-----|-------------------------------------------------------------------|--|------|--|-------|----------------|
| 16. | Video Input Level, R/G/B                                          |  | 0.7  |  | Vpp   |                |
| 17. | Video Input Level, Component(Y, P <sub>B</sub> , P <sub>R</sub> ) |  | 0.7  |  | Vpp   | 75 ohm         |
| 18. | RGB Input Resolution, Vertical                                    |  | 768  |  | pixel | 1080 For 42LED |
| 19. | RGB Input Resolution, Horizontal                                  |  | 1366 |  | pixel | 1920 For 42LED |
| 20. | RGB Input Horizontal Frequency                                    |  | 68   |  | kHz   |                |
| 21. | RGB Input Frame Rate                                              |  | 60   |  | Hz    |                |

## 10. The others

| No | Item                                        | Min | Typ | Max | Unit | Remark |
|----|---------------------------------------------|-----|-----|-----|------|--------|
| 1. | Search Sensitivity                          |     | 40  |     | dBuv |        |
| 2. | Clock, real time gain or loss (sec per day) |     | NO  |     | sec  |        |
| 3. | Soft Ware Functionality Test                |     | YES |     |      |        |
| 4. | REMOCON Working Sensitivity, Straight       |     | 8   |     | m    |        |
| 5. | REMOCON Working Sensitivity, T/B/L/R        |     | 6   |     | m    |        |
| 6. | Closed Caption Sensitivity                  |     | 46  |     | dBuv |        |
| 7. | Teletext Sensitivity                        |     | 46  |     | dBm  |        |
| 8. | Resonance of unit (Sweep freq : 50 ~ 1000)  |     | NO  |     |      |        |

## 11. Customer Menu Setup (as shipped condition)

| No  | Item                   | Specification | Remark                  |
|-----|------------------------|---------------|-------------------------|
| 1.  | PSM                    | Standard      |                         |
| 2.  | SSM                    | Standard      |                         |
| 3.  | Volume                 | 20            |                         |
| 4.  | Mute                   | Off           |                         |
| 5.  | Input Mode             | RF            |                         |
| 6.  | Customer Menu Language | English       | Base on different order |
| 7.  | AVL                    | Off           |                         |
| 8.  | Sleep Timer            | Off           |                         |
| 9.  | Auto Sleep             | Off           |                         |
| 10. | Blue Back              | No            |                         |
| 11. | Surround               | Off           |                         |
| 12. | Caption                | Off           |                         |
| 13. | Noise Reducer          | Middle        | "Low" in some status    |

# Technical Specification

---

## 12. Reliability

| No | Item                           | Min | Typ | Max | Unit | Remark        |
|----|--------------------------------|-----|-----|-----|------|---------------|
| 1. | ESD                            |     | 4   |     | kV   | IEC-1000-4-2  |
| 2. | EFT/Burst                      |     |     |     | kV   | IEC-1000-4-4  |
| 3. | Surge Immunity                 |     |     |     | kV   | IEC-1000-4--5 |
| 4. | Voltage Dip Test, 10ms         |     |     |     | %    | IEC-1000-4-11 |
| 5. | Voltage Dip Test, 100ms        |     |     |     | %    | IEC-1000-4—11 |
| 6. | Operation Temperature          |     |     |     | deg  |               |
| 7. | Operation Humidity             |     |     |     | %    |               |
| 8. | Storage Temperature            |     |     |     | deg  |               |
| 9. | MTBF (Confidence Level : 90 %) |     |     |     | hour |               |



# Technical Specification

## DTV-PRODUCTOINS SPECIFICATION

|                                                         |                             |
|---------------------------------------------------------|-----------------------------|
| Model #                                                 | 32"                         |
| Country( West Eu./East Eu./Russia/AP/US/S.A./Japan/...) | Brazil & Argentina          |
| Brand                                                   | Skyworth/ODM                |
| Category (Monitor/TV/Combo/Portable TV...)              | TV                          |
| Panel technology (LCD / PDP)                            | LCD/LED                     |
| Market Position (High/Mid/Access,,)                     | Class                       |
| Cabinet Design (Example: 01,23 series )                 | K06/E60                     |
| Product Nb                                              | -                           |
| Chassis solution                                        | MSD309                      |
| Chassis name                                            | 8M19B                       |
| Chassis PCB Standard                                    | Skyworth RGB New Standard   |
| Predecessor (replace)                                   | -                           |
| MP date requested (ETD)                                 | 2011.1                      |
| MP date confirmed by supplier (ETD/ETA)                 | -                           |
| Status( Pre./Finish )                                   | -                           |
| <b>Regional requirement</b>                             |                             |
| Homologation (Gostandard/CE/MPTT/CB/...)                | CB                          |
| RoHS                                                    | Yes                         |
| Power supply(100-240V AC +/-10%/...)                    | 100-240V AC (-20%,+10%)     |
| Power consumption working / Annual                      | -                           |
| Power consumption standby                               | <1W                         |
| Power plug(VDE/UL/BS/...)                               | UCIEE/2pins                 |
| <b>Picture display</b>                                  |                             |
| Screen size : diagonale (inch)                          | 32"                         |
| Aspect ratio (16/9 // 4/3 // 15/9)                      | 16:9                        |
| 1st panel supplier : panel suppliers                    | LG                          |
| 1st panel supplier : panel reference                    |                             |
| Panel Display Type(MVA/PVA/IPS/...)                     | TFT LCD                     |
| 1st panel supplier : resolution                         | 32:1366x768、42/46:1920x1080 |
| <b>Dynamic contrast ratio</b>                           | <b>&gt;1000: 1</b>          |
| <b>Video signal process</b>                             |                             |
| Comb Filter (2D/3D)                                     | 2D                          |
| Noise Reduction (adaptative/3D/...)                     | NO                          |
| Picture improvement ( LTI/CTI,BLE,WLE,...)              | LTI/CTI                     |
| Color process (Gama correction/Skin correction /... )   | Follow main IC              |

# Technical Specification

|                                                                                |                                                     |
|--------------------------------------------------------------------------------|-----------------------------------------------------|
| Colour preset (Cool/Normal/Warm/Personal)                                      | Medium, Cool, Warm and Personal in PC mode          |
| Picture control ( Bright/Con./Sharpness/Color/Tint/...)                        | Yes                                                 |
| Picture presets : Standard / Bright / Soft / User                              | Standard / Mild / Film / Dynamic / Personal         |
| Picture freeze                                                                 | Yes                                                 |
| Multi picture : PIP ( AV )/POP ( AV )                                          | No                                                  |
| <b>Dynamic Backlight Control</b>                                               | <b>Yes</b>                                          |
| LED Backlight                                                                  | Yes                                                 |
| Deinterlacer (No/linear/motion adaptive/motion compensative)                   | NO                                                  |
| Film mode / reverse 3:2/2:2 pull down                                          | Yes / Yes                                           |
| Full HD support ( 1080P )                                                      | Yes                                                 |
| Single scan / Dual scan ( 120HZ )                                              | 32:Single scan                                      |
| Zoom type : 4/3 format                                                         | Yes                                                 |
| <b>Zoom type : 14/9 Zoom</b>                                                   | <b>Yes</b>                                          |
| Zoom type : 16/9 Zoom                                                          | 16/9 ZOOM 1                                         |
| Zoom type : 16/9 Zoom up/down                                                  | 16/9 ZOOM 2                                         |
| Zoom type : Cinerama                                                           | Yes                                                 |
| Zoom type : 16/9 Format                                                        | Yes                                                 |
| Zoom type : Auto ( by SCART Pin8 and WSS )                                     | Yes                                                 |
| Picture Auto adjustment (PC mode)                                              | Yes                                                 |
| <b>Sound</b>                                                                   |                                                     |
| Sound type ( Mono/AV stereo/Stereo )                                           | stereo                                              |
| Music Power (Watt)/RMS Power (Watt)                                            | 2 x 5W                                              |
| Tone control ( Bass&Treble / Graphic Equalizer )                               | Bass&Treble                                         |
| Special sound effect ( AVL / WIDE / Pseudo / ... )                             | AVL                                                 |
| Surround system ( Dolby / VD / SRS / BBE / ... )                               | Built-in Surround                                   |
| Sound control ( Volume , Balance , Mute )                                      | Volume, Balance, Mute                               |
| Sound presets (User/Speech/News/Standard)                                      | Standard / Music / Movie / Sport / Personal         |
| <b>Headphone volume control ( Separated / linked )</b>                         | <b>Yes(Linked)</b>                                  |
| Sound quality ( High / Mid / Low )                                             | Mid                                                 |
| <b>Reception and Decoding capability</b>                                       |                                                     |
| <b>RF range ( ATV )</b>                                                        | <b>54MHz~864MHz</b>                                 |
| <b>RF range ( DTV )</b>                                                        | <b>VHF 177-213 MHZ, UHF 473-803 MHZ</b>             |
| Color System (PAL/SECAM/NTSC/PAL M,N )                                         | PAL M,PAL N,NTSC M                                  |
| Audio Standard ( B/G/H/D/K/K'/I/L/L' )                                         | M,N                                                 |
| Stereo audio system ( Nicam,MTS,A2,...)                                        | BTSC,SAP                                            |
| Video standard NTSC 3.58 / 4.43 (AV)/PAL 60                                    | NTSC 3.58/4.43 , PAL                                |
| DTV SD support (DVB-T/S/C , ATSC , QAM , ... )                                 | ISDB-T                                              |
| DTV HD Support                                                                 | MPEG2,MPEG4,H.264                                   |
| MHEG5                                                                          | No                                                  |
| HD capability with YPbPr                                                       | Yes (720p; 1080i; 1080p@24/50/60Hz; 480i/p; 576i/p) |
| PC capability (up to maximum format)                                           | Up to 1280X1024 60Hz                                |
| HDMI capability ( AV/PC Format)                                                | Up to 1080P 24/50/60HZ                              |
| Compatible video format if DVD/USB:<br>DviX/VCD/SVCD/JPEG/AVI/MPEG2/WMV- HD/SD | JPEG/MPEG2/MPEG4/H.264/DivX (depending on license)  |

# Technical Specification

|                                                                                                     |                                                            |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Compatible audio format if DVD/USB:<br>MP3/WMA/AAC/MPEG1/...                                        | MP3/WMA(depending on license)                              |
| Playable Discs (CD/CD-R(RW)/CD-ROM/DVD+R/+RW/-R/-RW)                                                | No                                                         |
| Card reader format compatibility                                                                    | No                                                         |
| Macrovision                                                                                         | Yes                                                        |
| PVR                                                                                                 | Yes (FOR USB)                                              |
| Network                                                                                             | No                                                         |
| <b>User convenience</b>                                                                             |                                                            |
| OSD Language*                                                                                       | English/Spanish/Portuguese/French                          |
| OSD Positioning                                                                                     | No                                                         |
| OSD Transparency Adjust                                                                             | No                                                         |
| OSD Timeout Adjust                                                                                  | No                                                         |
| Customer Brand name(LOGO)                                                                           | Yes                                                        |
| IB languages                                                                                        | English                                                    |
| ATV Program Numbers (example: 99+3AV input )                                                        | 99+7AV                                                     |
| DTV Program Numbers                                                                                 | 600                                                        |
| Program edit ( naming , sorting , skip , swap .... )                                                | Naming / Skip / Swap                                       |
| Auto Naming/Auto Sorting                                                                            | No                                                         |
| TV Guide(DTV EPG)                                                                                   | EPG(next Seven-day)                                        |
| Favorite program                                                                                    | Yes                                                        |
| Number of buttons on cabinet (Power; Vol+/-; Pr+/-, Menu )                                          | Vol+/-; Pr+/-, Menu ,Source,Power(optional)                |
| Main switch button (yes/No)                                                                         | Yes                                                        |
| CCD ( Closed Caption)/V-CHIP                                                                        | Yes/No                                                     |
| Text Standard: (Top, FLOF,...)                                                                      | No                                                         |
| Teletext Level: 2.5 / 1.5                                                                           | -                                                          |
| Pages for teletext                                                                                  | -                                                          |
| Teletext character sets ****                                                                        | -                                                          |
| DVB-T teletext                                                                                      | -                                                          |
| Real clock                                                                                          | From DTV                                                   |
| Sleep timer                                                                                         | 10-240 Min.                                                |
| Timer                                                                                               | Turn On / Off, Program Switch                              |
| Parent Control -Source and Channel lock (Input code for certain channel)                            | Yes                                                        |
| Parent Control - Child lock (set the lock of the keyboard, only the RCU can control the TV)         | No                                                         |
| Parent Control - Kid pass (preset the ontime, channel for each day of the week)                     | No                                                         |
| Parent Control - Channel lock (For digital transmission and DVD program, to filter some programmes) | Yes                                                        |
| Calendar / Games                                                                                    | No                                                         |
| No program auto switch off                                                                          | 15 mins.                                                   |
| Hotel mode (Y/N)                                                                                    | T.B.D                                                      |
| DVD player (No/slot/tray)                                                                           | No                                                         |
| Tuner FM (yes/No)                                                                                   | No                                                         |
| software download(RS232/CI/USB/OAD)                                                                 | USB                                                        |
| Factory reset                                                                                       | Yes (in factory menu,reset the setting to shipment state ) |

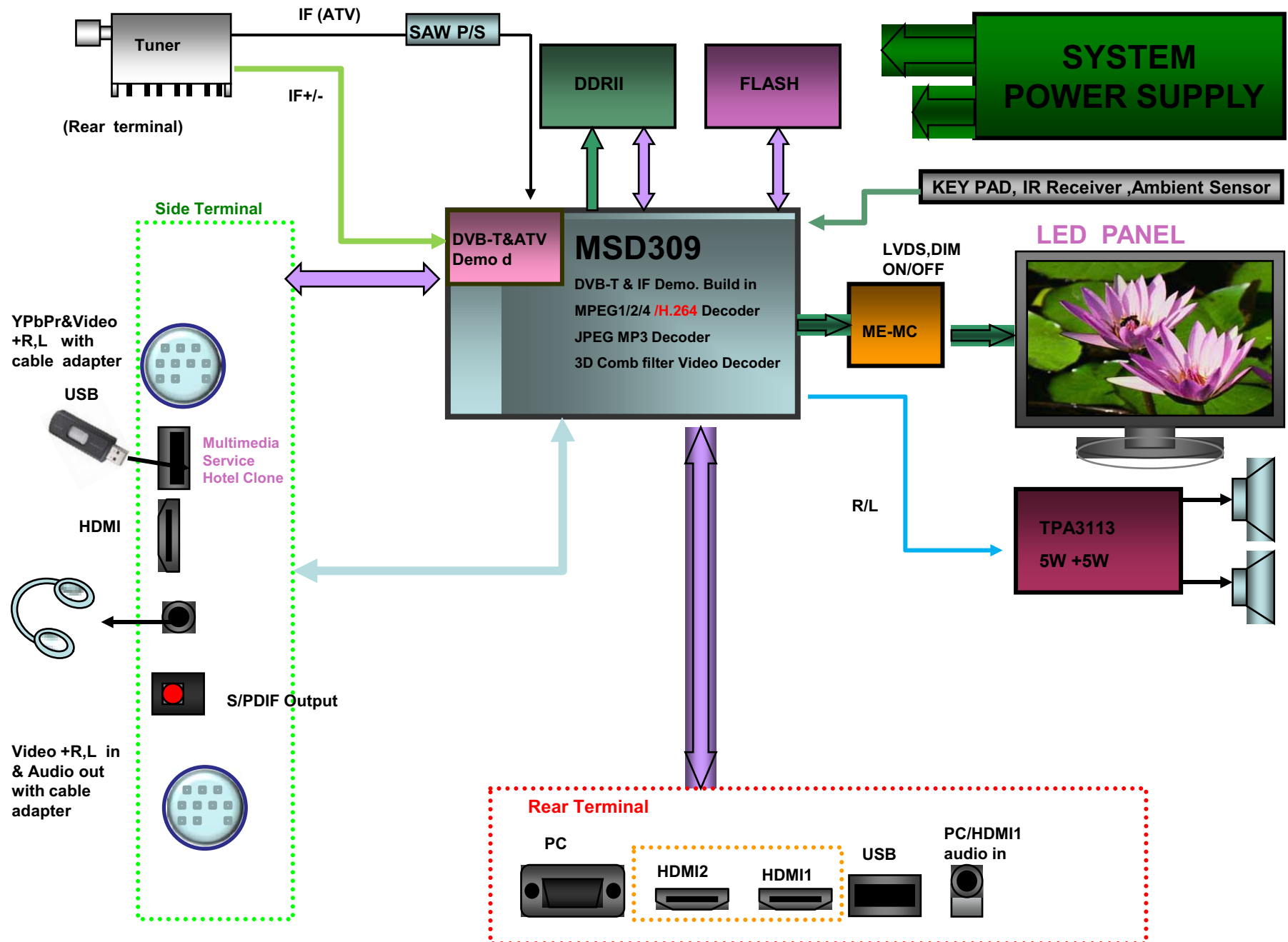
# Technical Specification

|                                                                         |                                                                         |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Screen saver                                                            | Yes                                                                     |
| Blue Back                                                               | No                                                                      |
| LED indicator(Power on/Standby)                                         | Blue / Red                                                              |
| <b>Connectors -Rear</b>                                                 |                                                                         |
| RF Input (Antenna): <b>Air/ Cable/</b> 2in1                             | Air+Cable                                                               |
| Scart : CVBS in&out / RGB / S-VIDEO                                     | No                                                                      |
| CINCH video in / out (AV1)                                              | No                                                                      |
| CINCH audio in / out (No volume control on Audio out/can be jack 3,5mm) | No                                                                      |
| S-video in                                                              | No                                                                      |
| Component Video Input (YCrCb/YPrPb)                                     | No                                                                      |
| Component Audio Input (YCrCb/YPrPb)                                     | No                                                                      |
| VGA in / Audio L/R in / Jack audio in 3.5mm                             | VGA + dia. 3.5mm for audio in                                           |
| HDMI                                                                    | 2                                                                       |
| DVI                                                                     | No                                                                      |
| Audio input for DVI                                                     | No                                                                      |
| CINCH subwoofer out / Coaxial out (S/PDIF)                              | S/PDIF out ( optical )                                                  |
| Headphone output connector (mm)                                         | No                                                                      |
| RS232 ( Y/N , VGA or DB9 port ...)                                      | No                                                                      |
| Card Readers                                                            | No                                                                      |
| USB slot (No/1.1/2)                                                     | NO                                                                      |
| DVB-CI (common interface)                                               | No                                                                      |
| External power converter input                                          | No                                                                      |
| <b>Connectors -Side</b>                                                 |                                                                         |
| HDMI                                                                    | 1                                                                       |
| AV-IN                                                                   | 1                                                                       |
| AV-OUT                                                                  | No                                                                      |
| Component Video Input (YCrCb/YPrPb)                                     | NO                                                                      |
| Component Audio Input (YCrCb/YPrPb)                                     | NO                                                                      |
| Headphone output connector (dia.mm)                                     | 1 (3.5mm)                                                               |
| CINCH subwoofer out / Coaxial out (S/PDIF)                              | NO                                                                      |
| USB slot (No/1.1/2)                                                     | 1 (Software update, JPEG, MP3, WMA, DivX) Multimedia depends on license |
| DVB-CI (common interface)                                               | No                                                                      |
| DLNA                                                                    | No                                                                      |
| <b>UI/RC</b>                                                            |                                                                         |
| UI design (font/pixel, 2D/3D graphic engine..)                          | NO                                                                      |
| RC Model                                                                | NO                                                                      |
| RC system                                                               | NO                                                                      |
| RC # of keys                                                            |                                                                         |
| <b>Accessories included</b>                                             |                                                                         |
| Carton (English/French/Spanish)                                         | English                                                                 |
| IB                                                                      | English                                                                 |

# Technical Specification

|                                                          |                             |
|----------------------------------------------------------|-----------------------------|
| Circuit diagram                                          | No                          |
| Batteries                                                | Yes                         |
| Product registration Card                                | Yes (English)               |
| AC Cable Length                                          | 1.8m                        |
| Audio Cord (Jack 3.5mm)                                  | Yes(For component audio in) |
| VGA Cord                                                 | No                          |
| Wallmount frame                                          | Optional                    |
| Antenna Cable                                            | No                          |
| 6 in 1( YPbPr & CVBS) cable adapter                      | No                          |
| <b>General Data</b>                                      |                             |
| Size (W x H x D, with stand) in mm                       | -                           |
| Size (W x H x D, without stand) in mm                    | -                           |
| Package Size (W x H x D, without stand) in mm            | -                           |
| Net Weight in kg                                         | -                           |
| Gross Weight in Kg                                       | -                           |
| <b>Design / Mechanical</b>                               |                             |
| Wallmount VESA compatible (standard reference)           | Yes                         |
| Adaptor for VESA wallmount compatibility (accessory ref) | Yes                         |
| Desktop Stand (included/optionnal + ref/No)              | included                    |
| Panel Tilt (Fowards/Backwards/Rotation)                  | No                          |
| Swivel function desktop stand (yes/No) + motorized?      | No                          |
| Docking station (yes/No)                                 | No                          |
| Floor Stand (included/optionnal + ref/No)                | No                          |
| Glass shield (yes/No)                                    | No                          |
| Finish on Front                                          | -                           |
| Finish on side                                           | -                           |
| Finish on back                                           | -                           |
| Finish on stand                                          | -                           |
| number of colors on carton box                           | 2                           |
| Brand logo                                               | Customer Inlet              |
| Other logo                                               | Optional                    |
| External AC/DC Power with DC power cord (yes/No)         | No                          |
| Handle (yes/No)                                          | No                          |
| Detachable speaker (yes/No)                              | No                          |
| Rating Label languages                                   | English                     |

## 8M19 Block Diagram of LAMTAM



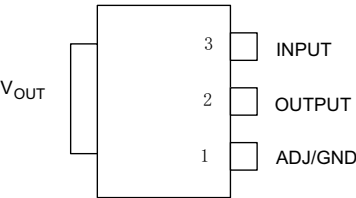
### List of key parts

| NO | Name     |     | Factory mode      | P/N              |
|----|----------|-----|-------------------|------------------|
| 1  | Receiver | IR1 | HM238R            | 5300-148430-0000 |
| 2  | Speaker  |     | YDT2610-02AU      | 5656R108104-0090 |
|    |          |     |                   |                  |
| 3  | Crystal  | Y1  | HC-49U            | 4900-124053-R000 |
|    |          | Y2  | 49U3H             | 4900-125453-R000 |
| 4  | Tuner    | U10 | VA1P1BF8401       | 5202-45733D-7H10 |
| 5  | SAW      | U30 | F4401             | 4900-744015-0X00 |
| 6  | IC       | U50 | EUP3482D          | 47AP-E34820-0080 |
|    |          | U51 | EUP3482D          | 47AP-E34820-0080 |
|    |          | U52 | EUP3482D          | 47AP-E34820-0080 |
|    |          | U49 | MP1492DS-LF-Z     | 476A-M14920-0080 |
|    |          | U9  | W9751G6JB-25      | 4737-W97511-0840 |
|    |          | U15 | W9751G6JB-25-     | 4737-W97511-0840 |
|    |          | U24 | EN25F32-100HIP    | 471R-N25321-0080 |
|    |          | U38 | AS1117L-3.3       | 47B6-A11170-03   |
|    |          | U37 | AS1117L-1.8       | 47B6-A11172-03   |
|    |          | N2  | AS1117L-1.2       | 47B6-A11175-0300 |
|    |          | U18 | AS7805R           | 47B6-A78050-0030 |
|    |          | U45 | LM4558            | 47DG-G45580-0080 |
|    |          | U56 | TPA3113D2         | 4722-T31130-0280 |
|    |          | U2  | MSD309PX-LF-Z1-SB | 475C-M30903-5230 |

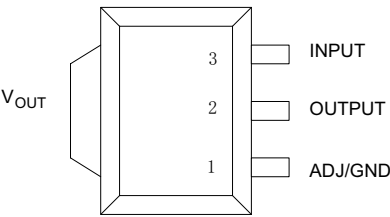
# IC Block Diagram

## Pin Configurations---AS1117L-3.3

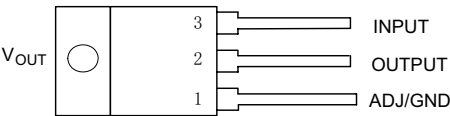
L Package  
(SOT-223)



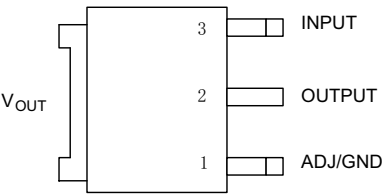
U Package  
(SOT-89)



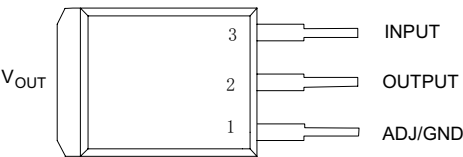
T Package  
(TO-220)



R Package  
(TO-252)



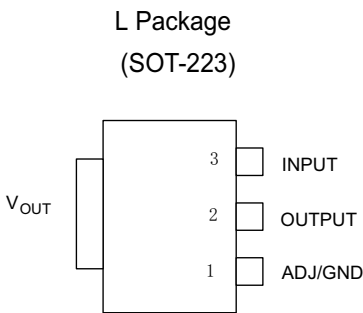
S Package  
(TO-263)





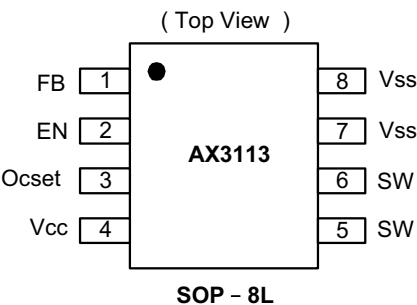
# IC Block Diagram

## Pin Configurations---AS1117L-ADJ



### ❖ PIN ASSIGNMENT

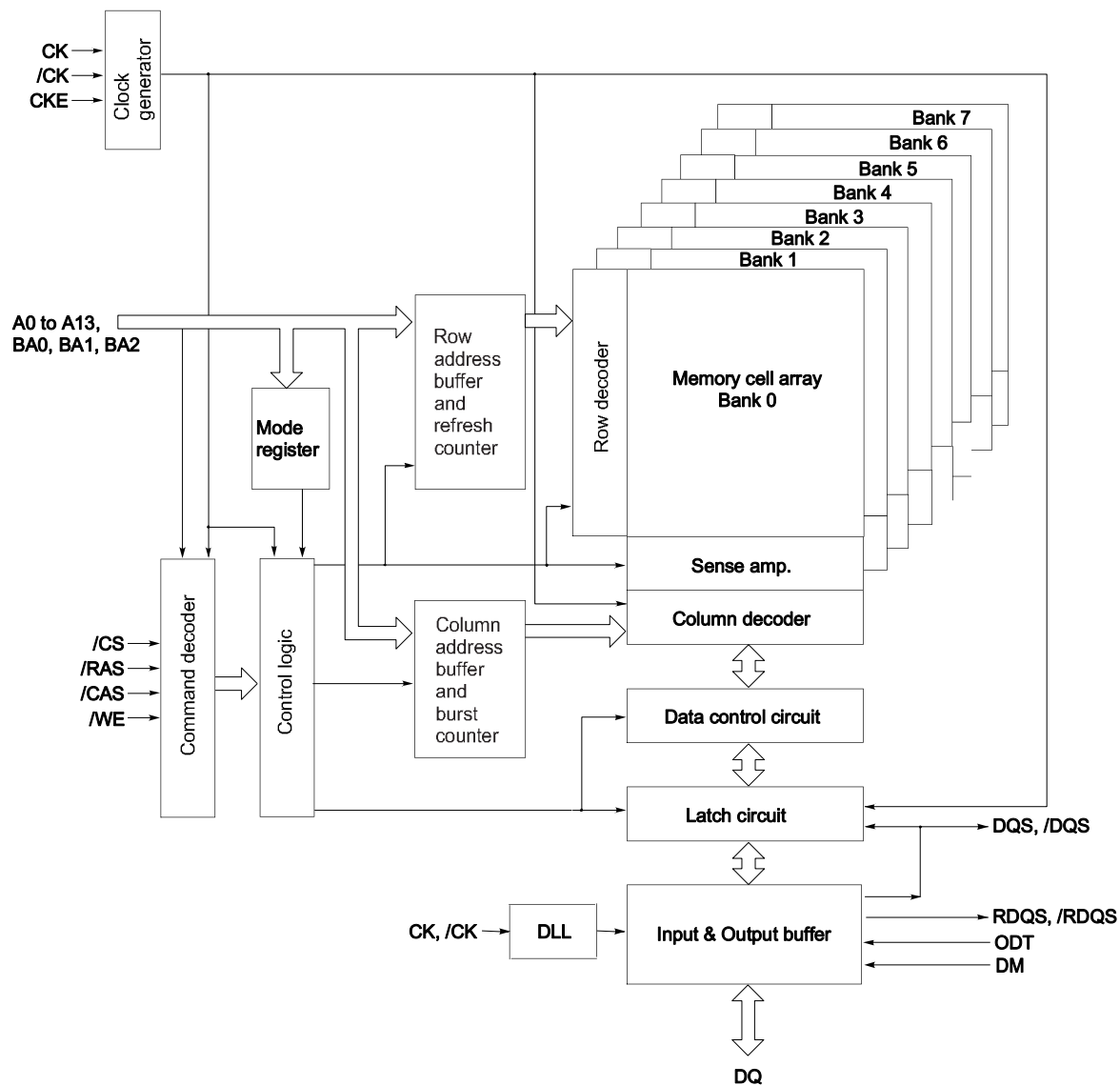
The package of AX3113 is SOP-8L; the pin assignment is given by:



| Name  | Description                                                                                                       |
|-------|-------------------------------------------------------------------------------------------------------------------|
| FB    | Feedback pin                                                                                                      |
| EN    | Power-off pin<br>H : normal operation(Step-down)<br>L : Step-down operation stopped<br>(All circuits deactivated) |
| OCSET | Add an external resistor to set max switch output current.                                                        |
| Vcc   | IC power supply pin                                                                                               |
| SW    | Switch pin. Connect external inductor & diode here.                                                               |
| Vss   | GND pin                                                                                                           |

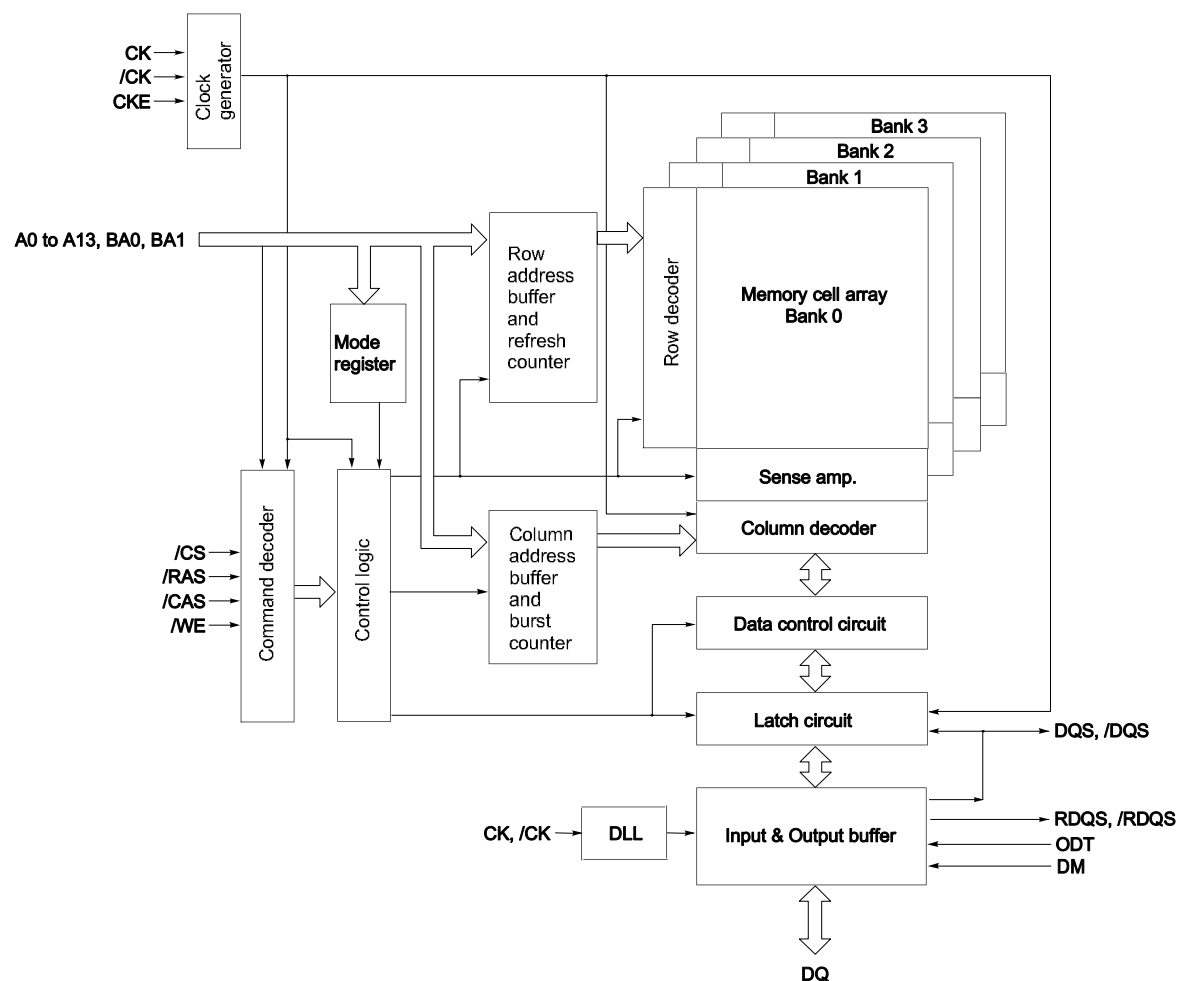
# IC Block Diagram

Block Diagram--EDE1116AEBG-8E-F



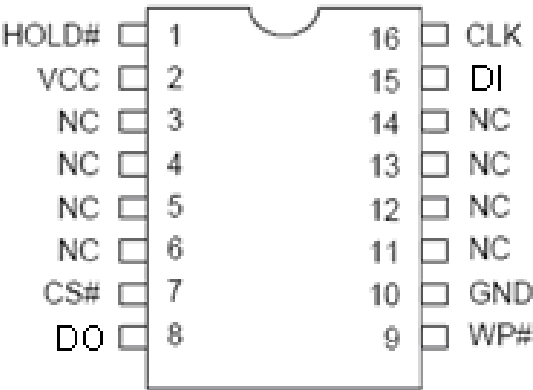
# IC Block Diagram

Block Diagram --EDE5116AJBG-8E-E

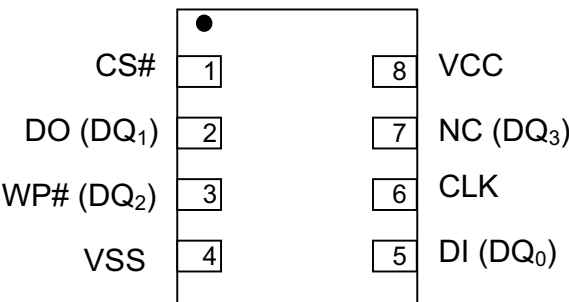


# IC Block Diagram

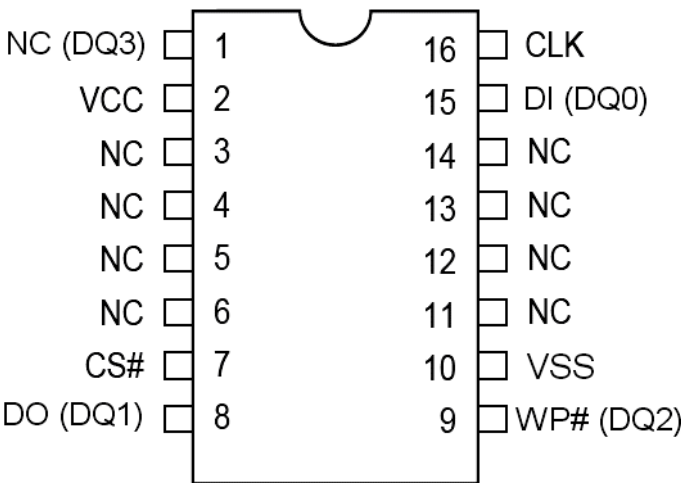
## EN25B64--100FIP



## EN25Q128-104FIP



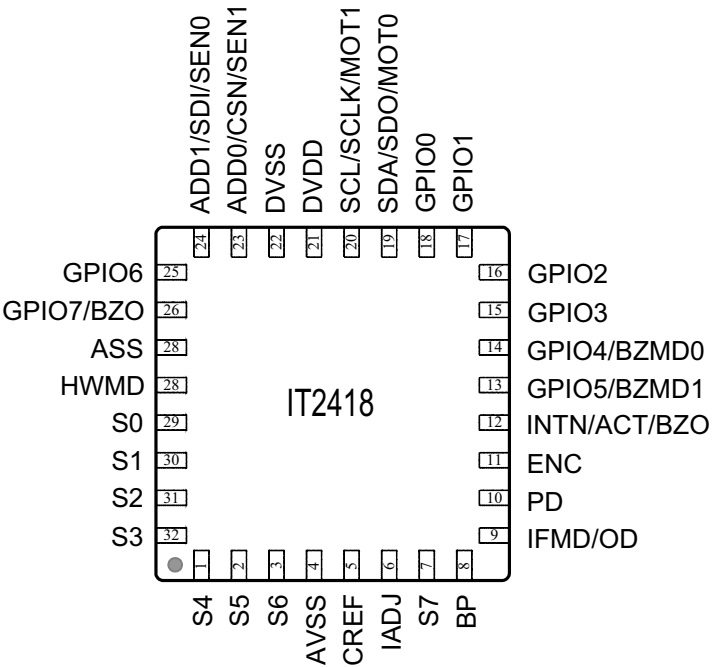
8 - LEAD VDFN



16 - LEAD SOP

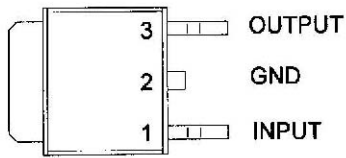
IC Block Diagram

IT2418



LM78D05

TO-252-2



# IC Block Diagram

## LM4558

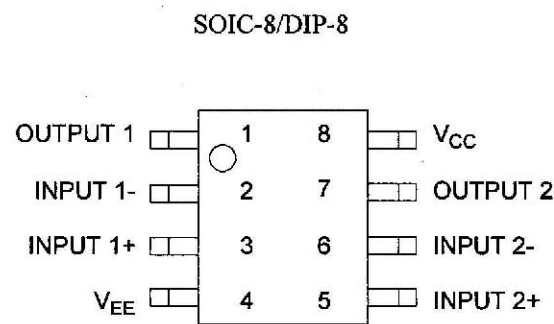
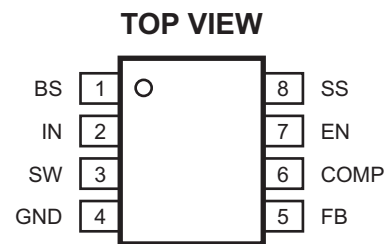


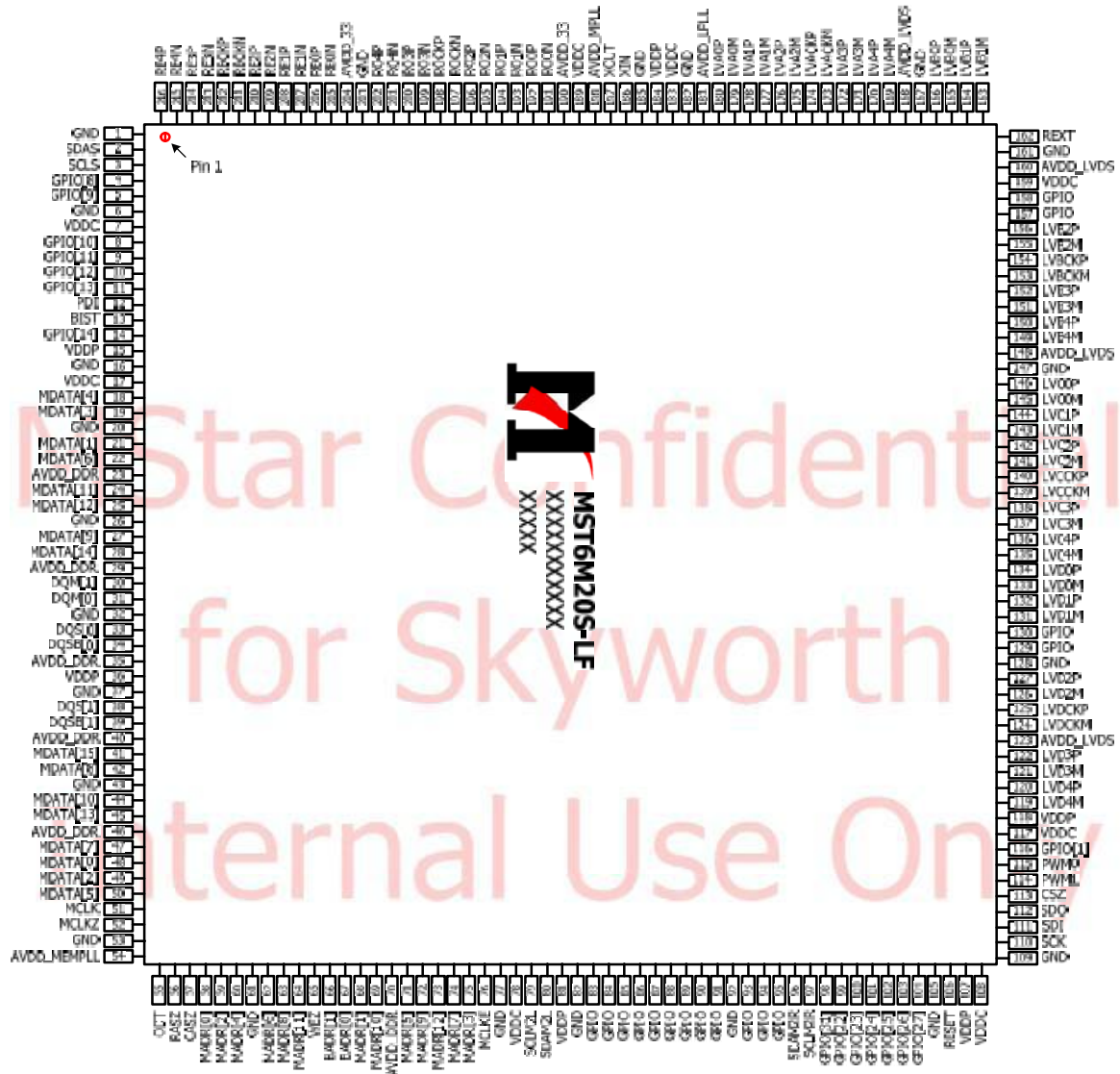
Figure 2. Pin Configuration of LM4558 (Top View)

## MP1482DS



## IC Block Diagram

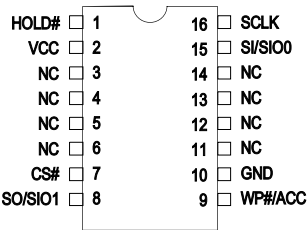
### MST6M20S-LF



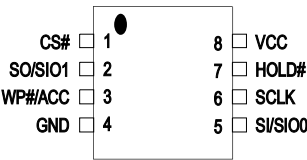
# IC Block Diagram

## MX25L6405DMI-12G

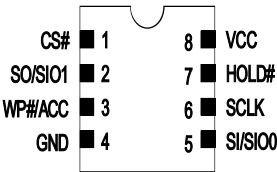
### 16-PIN SOP (300mil)



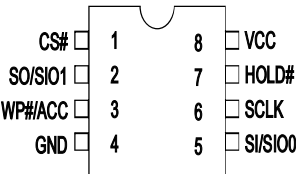
### 8-PIN SOP (200mil, 150mil)



### 8-LAND WSON (8x6mm, 6x5mm) for MX25Lxx05D



### 8-PIN PDIP (300mil)



### PACKAGE OPTIONS

|               | 16M | 32M | 64M |
|---------------|-----|-----|-----|
| 150mil 8-SOP  | V   |     |     |
| 200mil 8-SOP  | V   | V   |     |
| 300mil 16-SOP | V   | V   | V   |
| 300mil 8-PDIP | V   | V   |     |
| 6x5mm WSON    | V   | V   |     |
| 8x6mm WSON    |     |     | V   |

### PIN DESCRIPTION

| SYMBOL  | DESCRIPTION                                                                                         |
|---------|-----------------------------------------------------------------------------------------------------|
| CS#     | Chip Select                                                                                         |
| SI/SIO0 | Serial Data Input (for 1 x I/O)/ Serial Data Input & Output (for 2xI/O read mode)                   |
| SO/SIO1 | Serial Data Output (for 1 x I/O)/ Serial Data Input & Output (for 2xI/O read mode)                  |
| SCLK    | Clock Input                                                                                         |
| WP#/ACC | Write protection: connect to GND ; 11.0~11.5V for program/erase acceleration: connect to 11.0~11.5V |
| HOLD#   | Hold, to pause the device without deselecting the device                                            |
| VCC     | + 3.3V Power Supply                                                                                 |
| GND     | Ground                                                                                              |

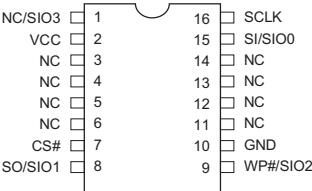


# IC Block Diagram

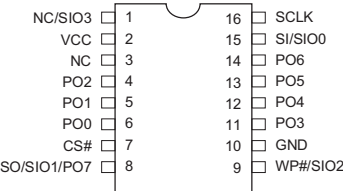
## MX25L12845EMI-10G

### PIN CONFIGURATION

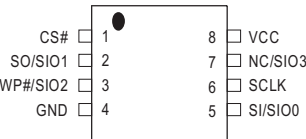
16-PIN SOP (300mil) for MX25L6445E



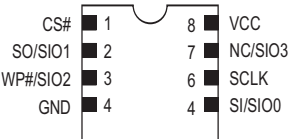
16-PIN SOP (300mil) for MX25L12845E



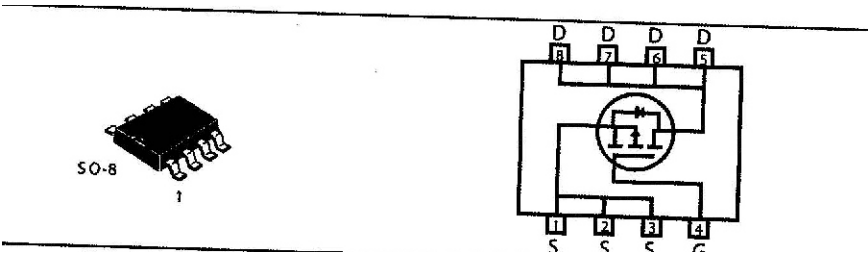
8-PIN SOP (200mil)



8-WSON (8x6mm)

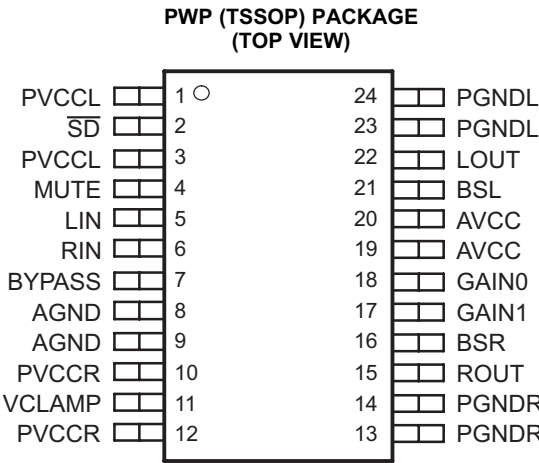


## STM9435

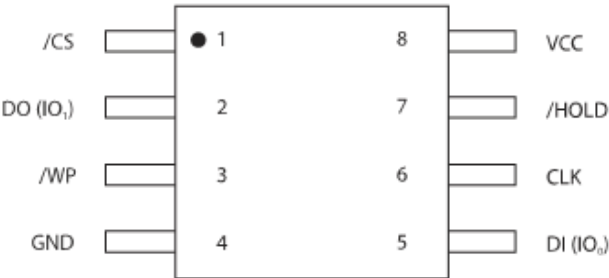


# IC Block Diagram

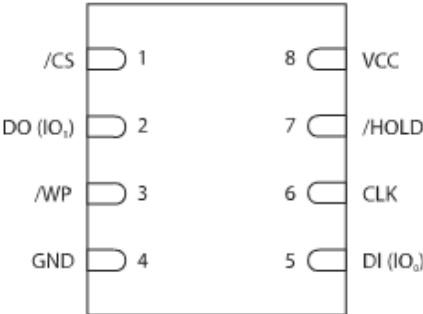
## W25X40BVSNI



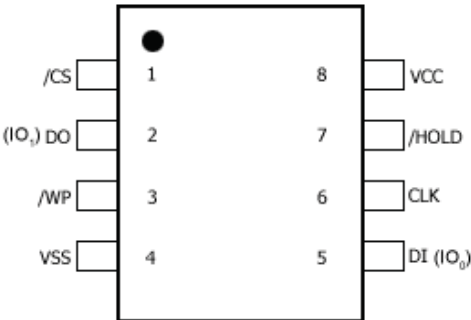
### PIN CONFIGURATION SOIC 150-MIL / 208-MIL

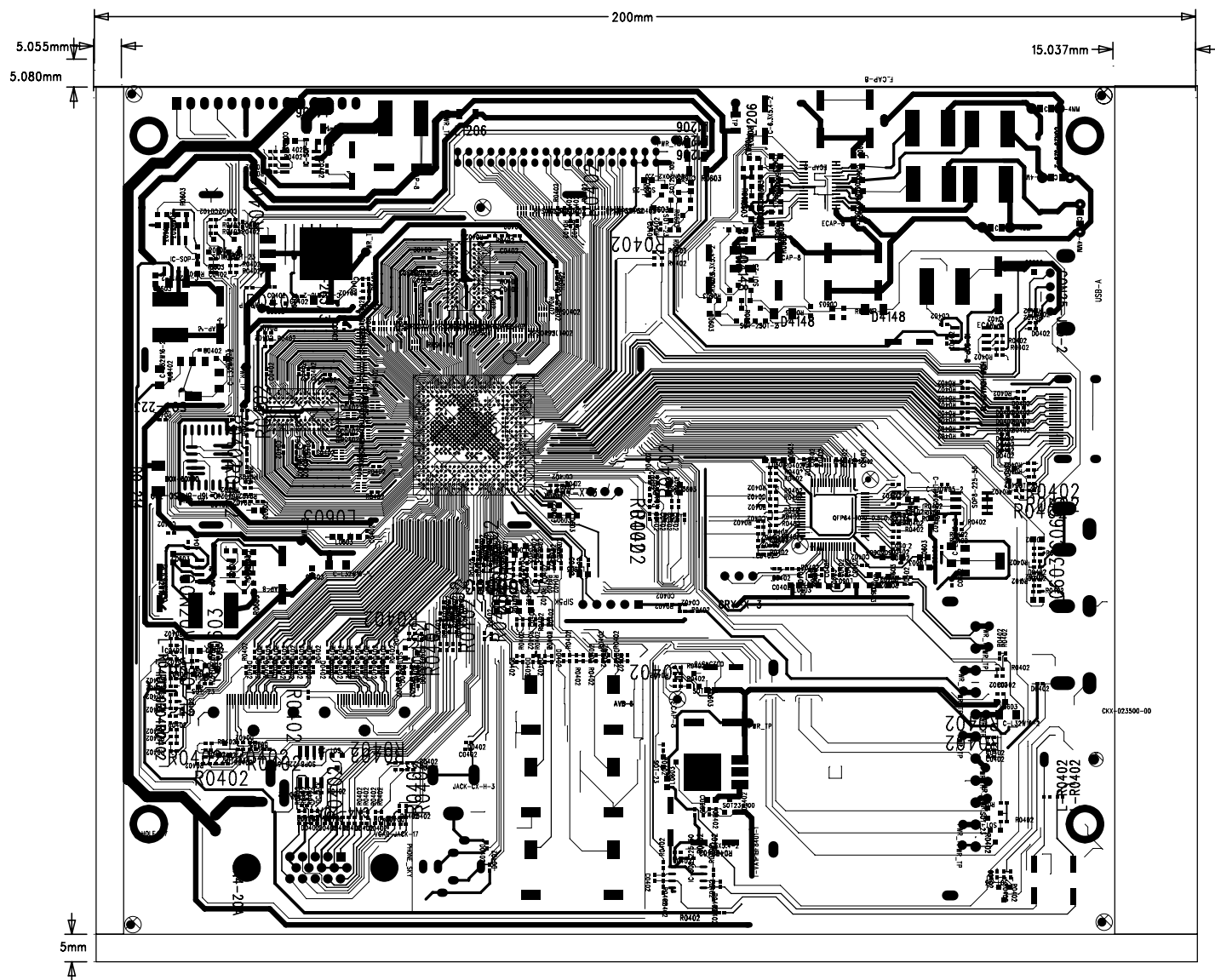


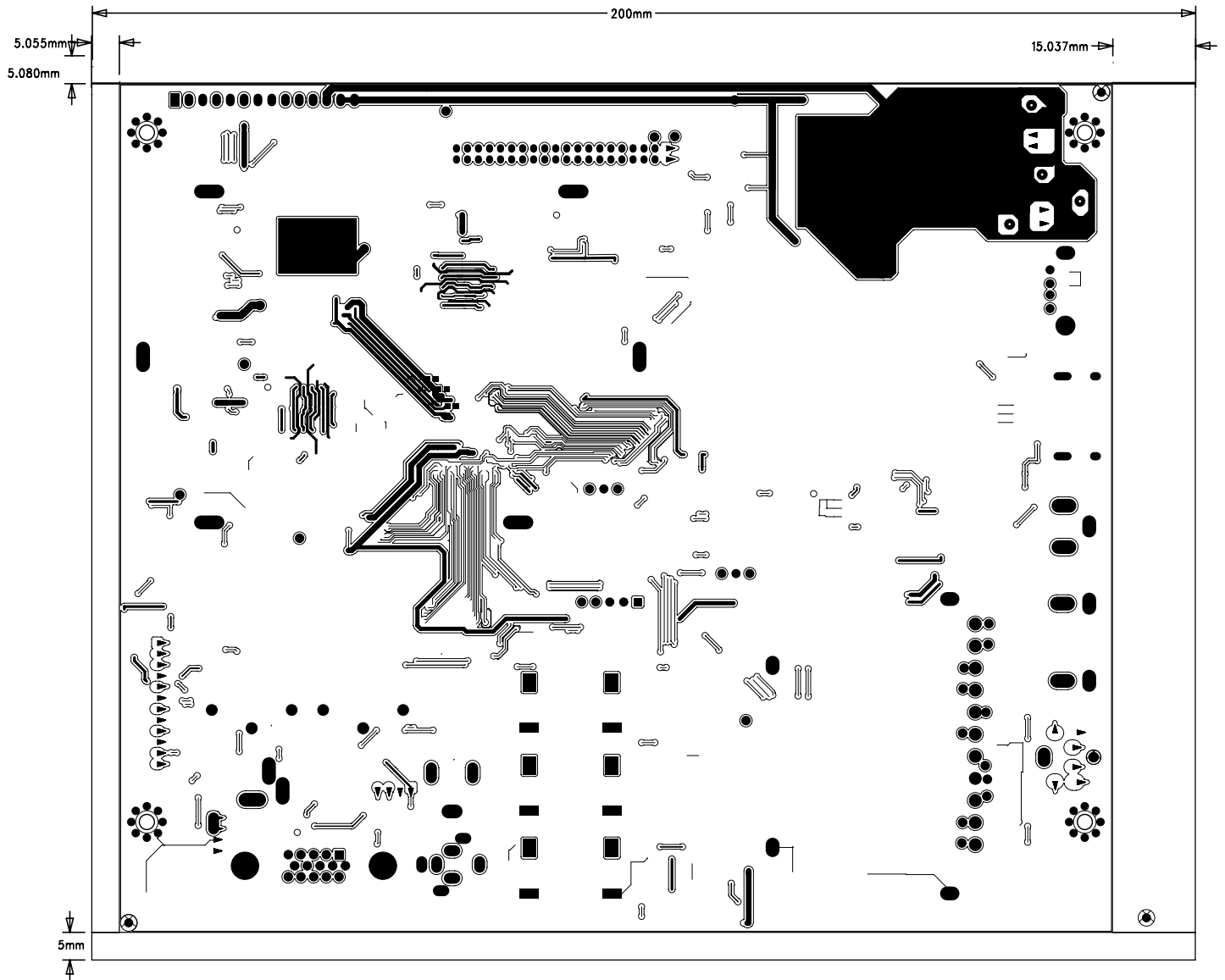
### PAD CONFIGURATION WSO 6X5-MM



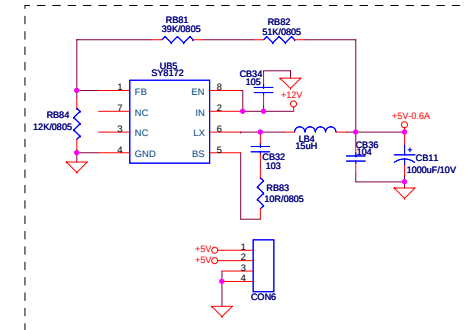
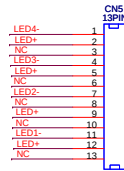
### PIN CONFIGURATION PDIP 300-MIL





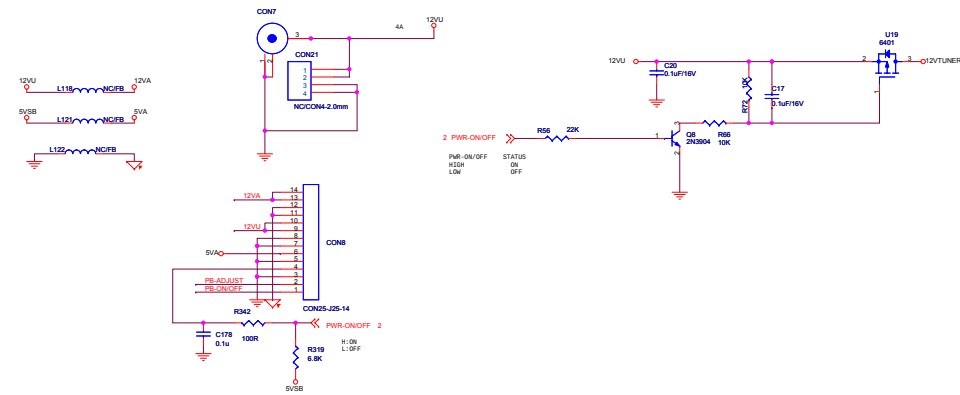


**SPECIFICATION**  
**INPUT: 100-240V AC**  
**OUTPUT: +5V:0.1-1A**  
**+12V:0.1-2A**

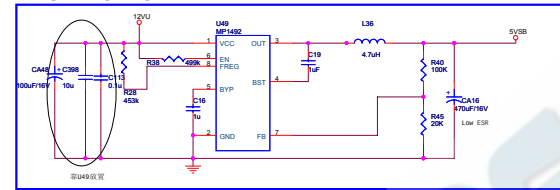


|          |                          |       |        |
|----------|--------------------------|-------|--------|
| File     | 3.5Frame                 | Rev   |        |
| Size     | Document Number          | Rev   |        |
| Customer | Doc                      | Rev   |        |
| Date     | Monday, October 10, 2011 | Sheet | 1 of 3 |

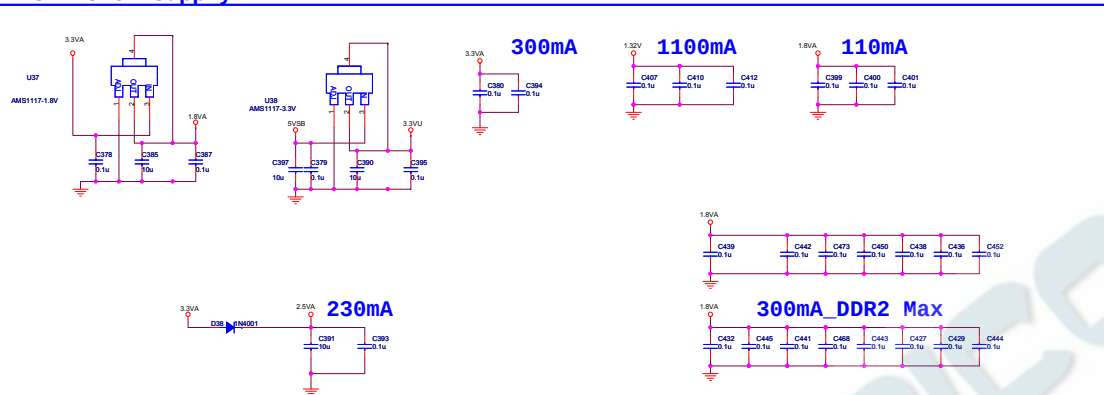
## Power Input



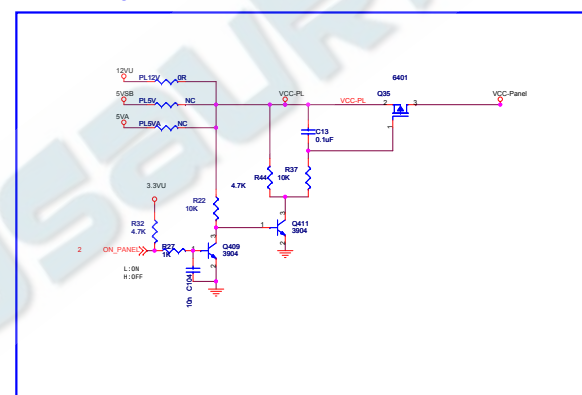
## 5V DC-DC



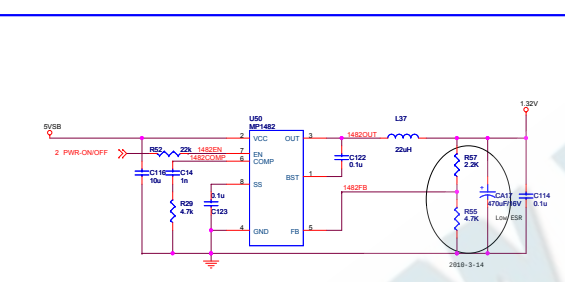
## MST Power supply



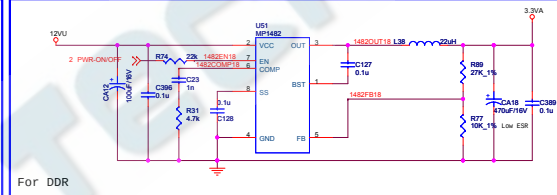
## PANEL POWER



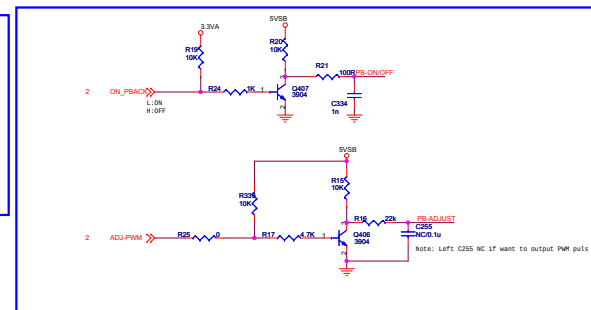
## 1.32V DC-DC



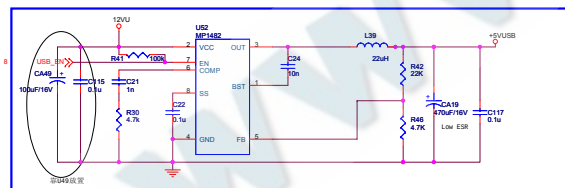
## 3.3V DC-DC



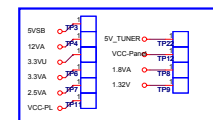
## Inverter Interface



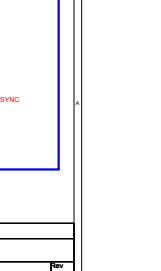
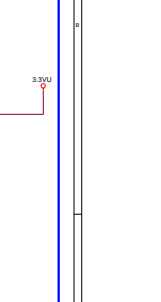
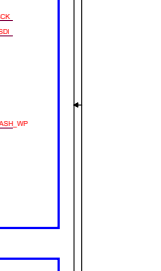
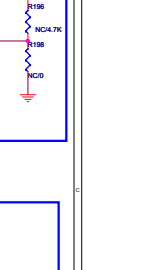
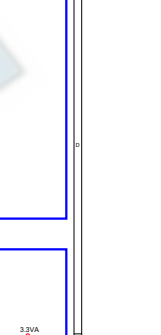
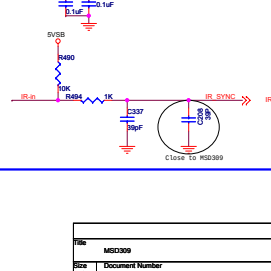
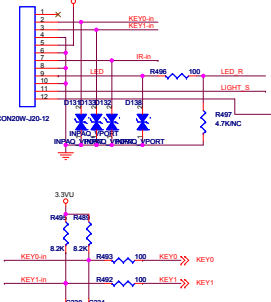
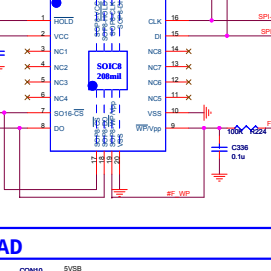
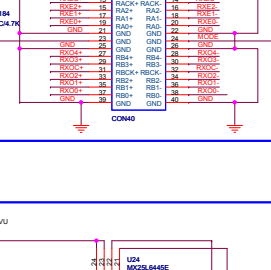
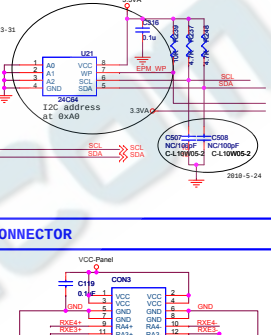
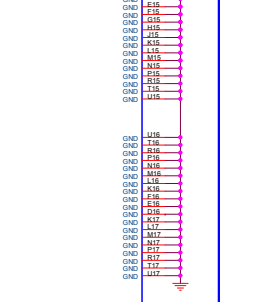
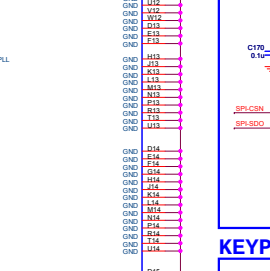
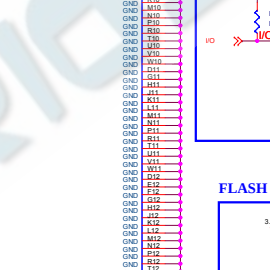
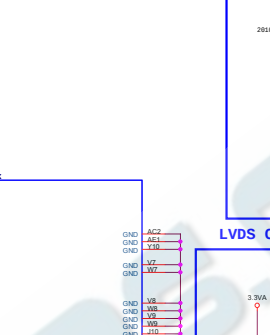
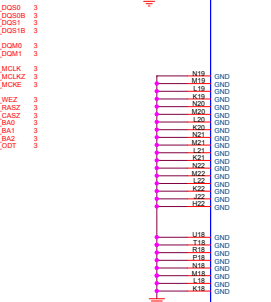
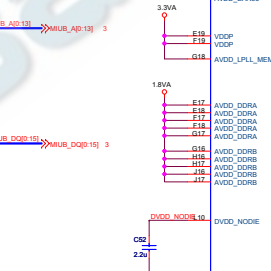
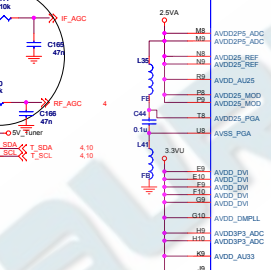
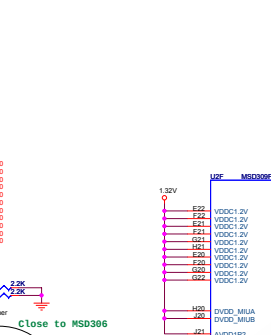
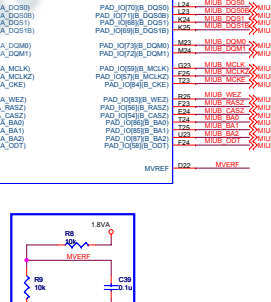
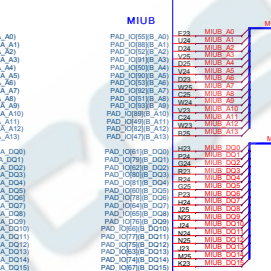
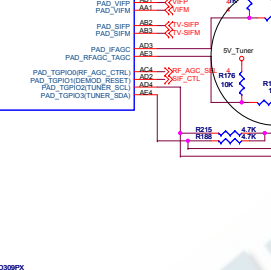
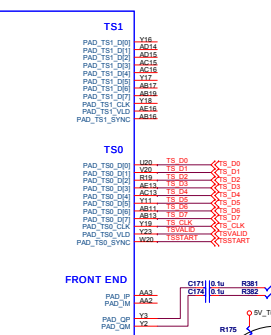
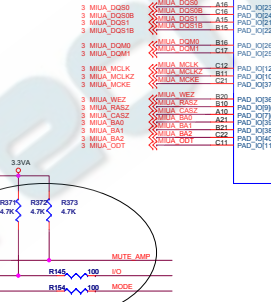
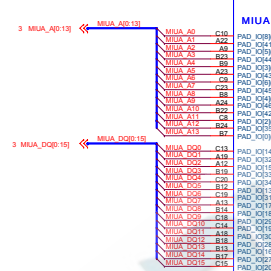
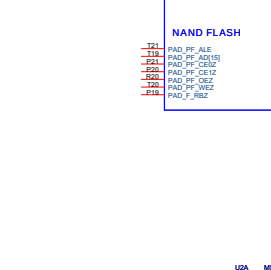
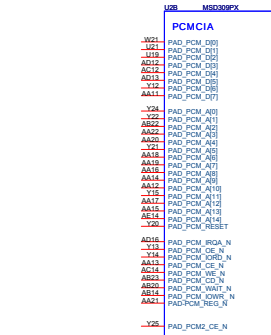
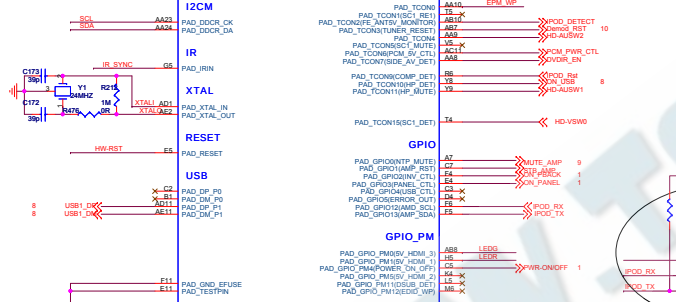
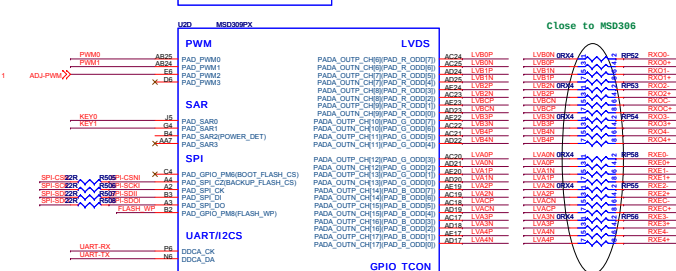
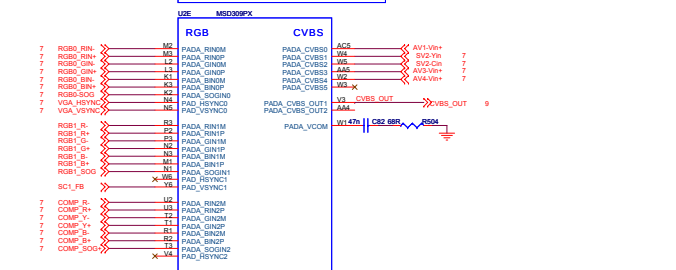
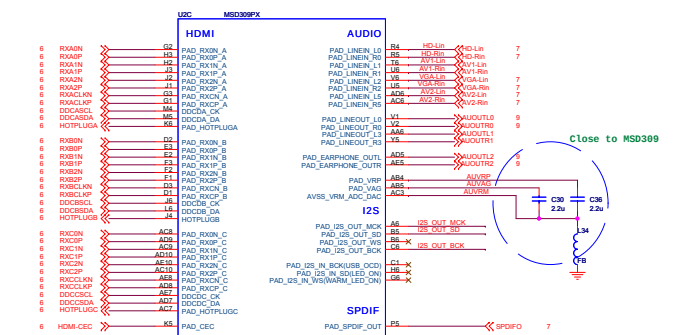
## 5V\_USB



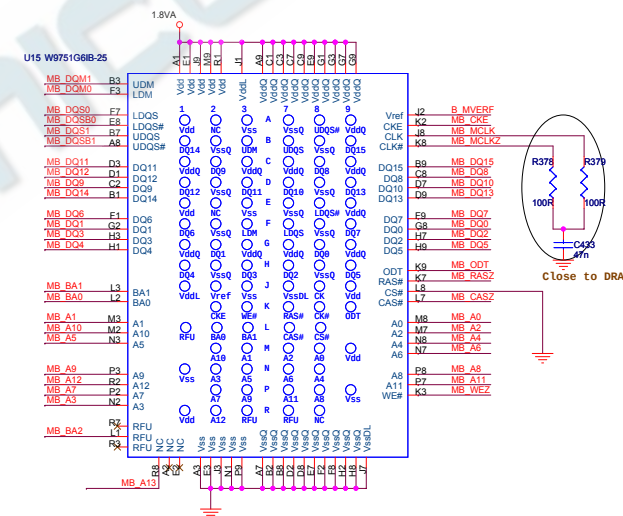
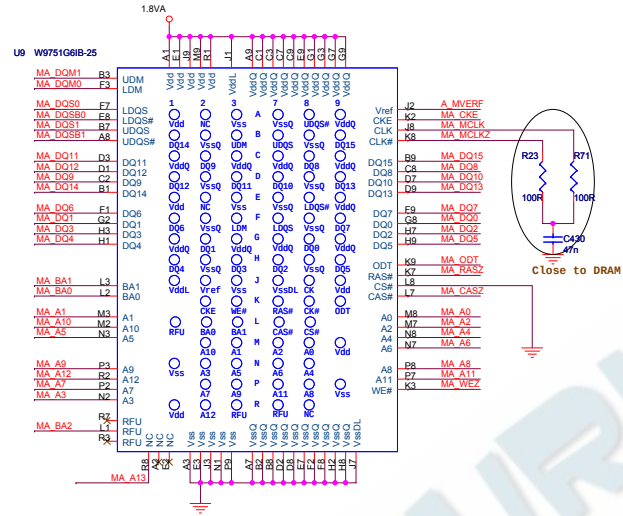
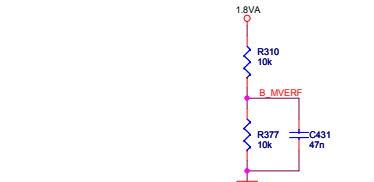
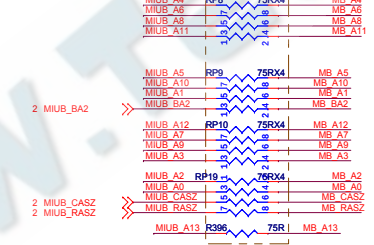
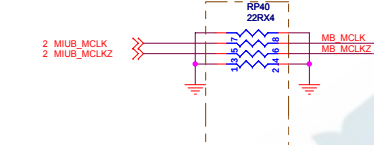
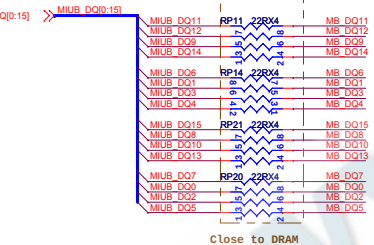
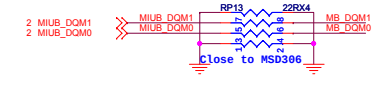
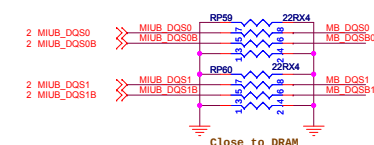
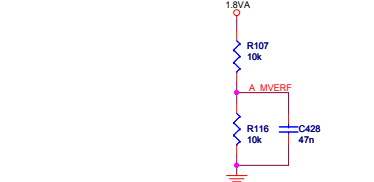
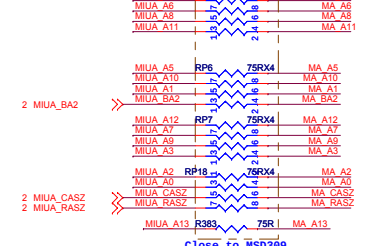
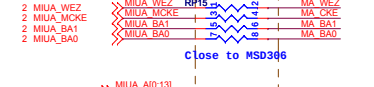
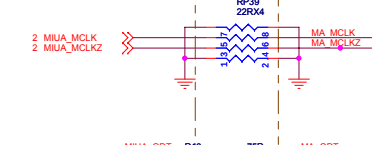
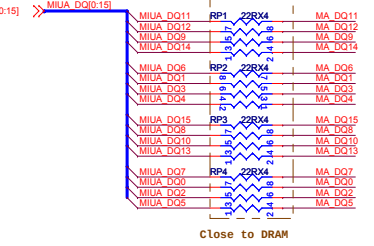
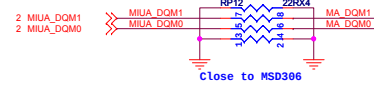
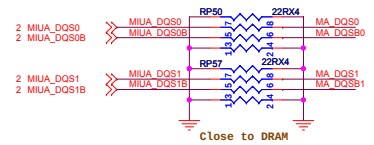
## Power Test Point



| POWER    |                           |               |
|----------|---------------------------|---------------|
| File     | Document Number           | Rev           |
| 00000000 | 00000000                  | 0.1           |
| Date     | Friday, February 18, 2011 | Sheet 1 of 10 |









The schematic diagram shows the VA1P1BF8401 component with the following connections and components:

- Pin 15:** Body connection to ground.
- Pin 12:** Body connection to ground.
- Pin 11:** IF\_OUT2 connection to T\_IFAGC.
- Pin 10:** IF\_OUT1 connection to T\_IF\_OUT.
- Pin 9:** IF\_AGC connection to T\_IFAGC.
- Pin 8:** IF\_A\_OUT connection to T\_IF\_OUT.
- Pin 7:** VCC\_DVB connection to 9V\_B.
- Pin 6:** SDA connection to T\_SDA.
- Pin 5:** SCL connection to T\_SCL.
- Pin 4:** AS connection to ground.
- Pin 3:** NC connection to ground.
- Pin 2:** RFAGC\_M connection to T\_RF\_AGC.
- Pin 14:** Body connection to ground.
- Pin 13:** Body connection to ground.

Internal components include:

- C508:** 47pF capacitor connected to T\_SCL.
- C510:** 47pF capacitor connected to T\_SDA.

External components include:

- 9V\_B:** 9V battery symbol.
- T\_IFAGC:** Transistor symbol.
- T\_IF\_OUT:** Transistor symbol.
- T\_SCL:** Transistor symbol.
- T\_SDA:** Transistor symbol.
- T\_RF\_AGC:** Transistor symbol.

Legend:

- 10 IF\_AGC\_DVB >> T\_IFAGC

12V TUNER

U18

BA05

5V TUNER

5V\_B

0.1u

C482

0.1u

C481

C480

470uF/16V

1n

C459

C388

10u

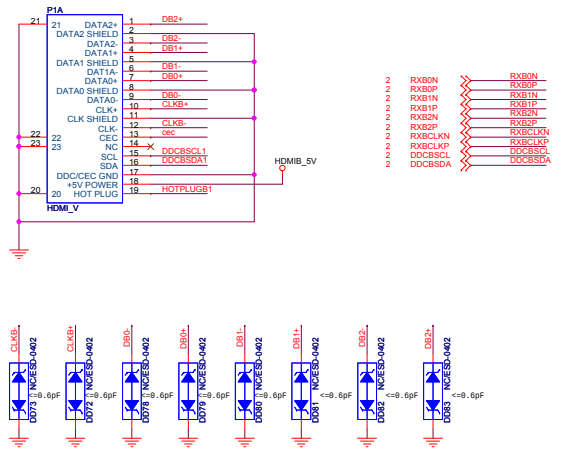
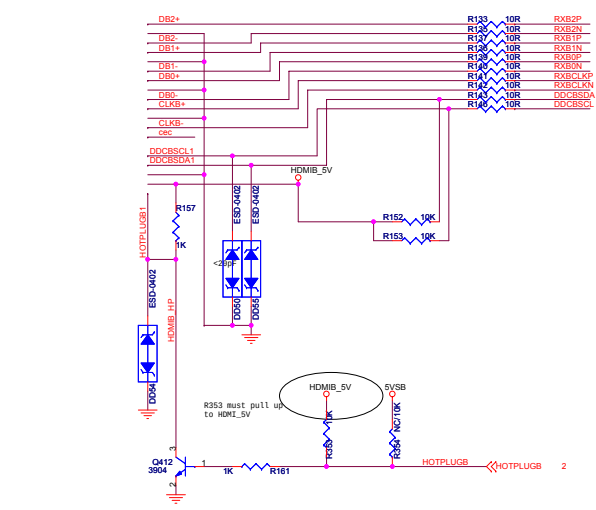
Close to tuner

[illegible]

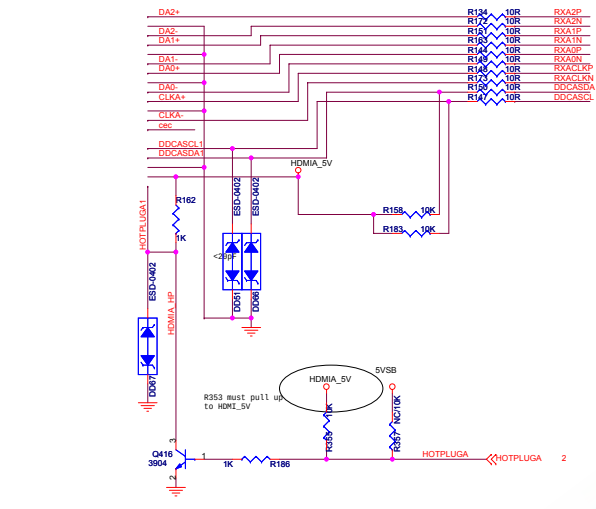
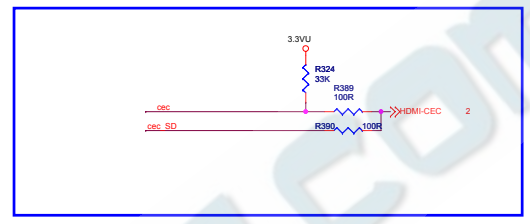
Close to MSD389

|        |                            |       |   |       |
|--------|----------------------------|-------|---|-------|
| Title  |                            |       |   |       |
| TUNER  |                            |       |   |       |
| Size   | Document Number            |       |   | Rev   |
| Custom | m/10                       |       |   | 0.1   |
| Date:  | Tuesday, February 15, 2011 | Sheet | 4 | of 10 |

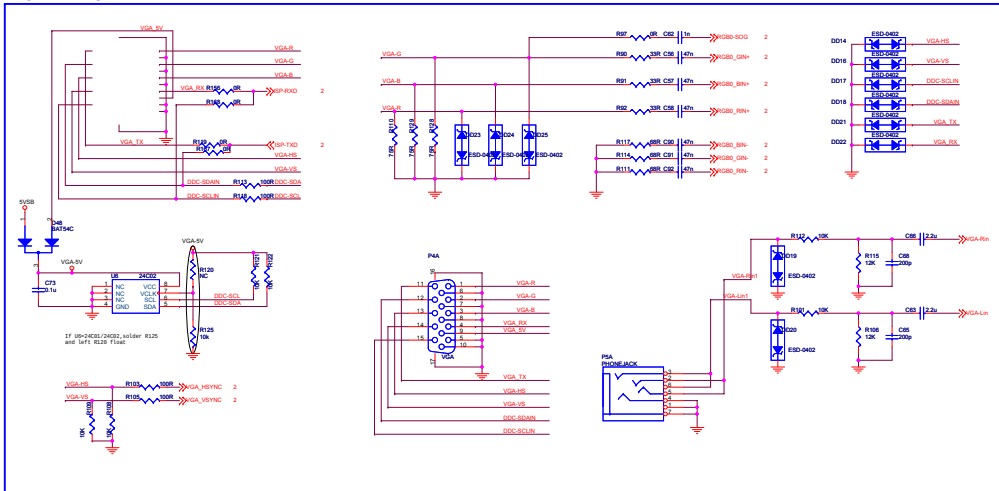
HDMI Input



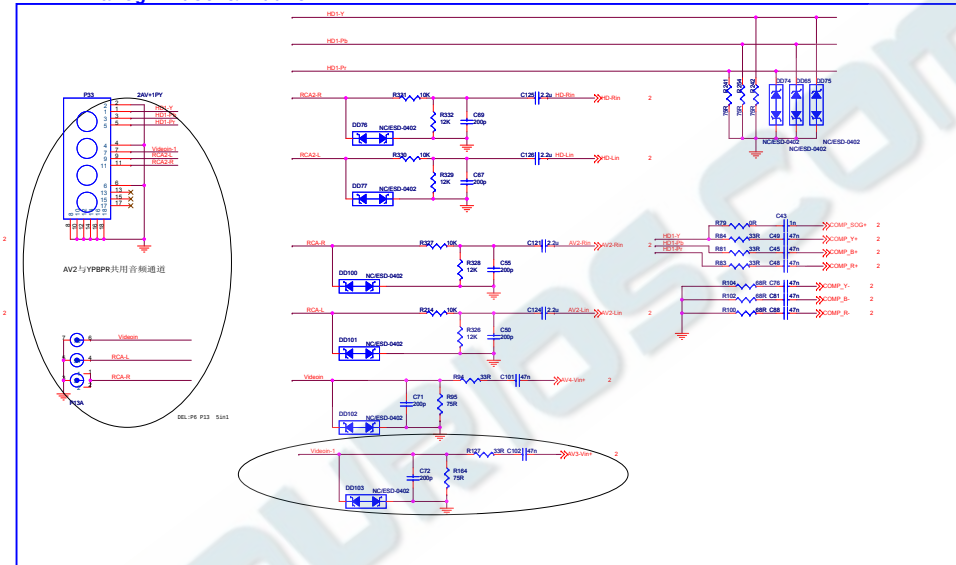
HDMI CEC



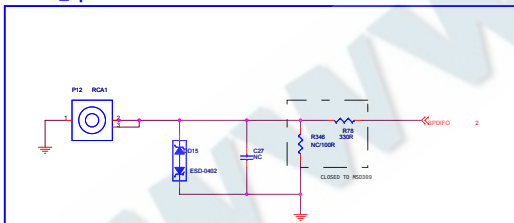
## VGA INPUT



## Analog Video & Audio in



## SPDIF\_Optical Out



**FOR UN-USED PORTS**

