

JVC

SCHEMATIC DIAGRAMS

INTEGRATED DIGITAL TERRESTRIAL/SATELLITE LCD TELEVISION

LT-32DB1BU_{/AX}

DVD-ROM No.SML2009Q1



DVB[®]
Digital Video
Broadcasting
HD
ready
HDMI[™]
HIGH DEFINITION MULTIMEDIA INTERFACE

LT-32DB1BU/AX

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the $\triangle$ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1)Input signal : Colour bar signal
- (2)Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3)Internal resistance of tester : DC 20k Ω /V
- (4)Oscilloscope sweeping time : H $\Rightarrow$ 20 μ s / div
: V $\Rightarrow$ 5ms / div
: Others $\Rightarrow$ Sweeping time is specified
- (5)Voltage values : All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R1209 $\rightarrow$ R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

- No unit : [Ω]
- K : [k Ω]
- M : [M Ω]

● Rated allowable power

- No indication : 1/16 [W]
- Others : As specified

● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflammable resistor
- FR : Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

- 1 or higher : [pF]
- less than 1 : [μ F]

● Withstand voltage

- No indication : DC50[V]
- Others : DC withstand voltage [V]
- AC indicated : AC withstand voltage [V]

* Electrolytic Capacitors

47/50[Example]: Capacitance value [μ F]/withstand voltage[V]

●Type

- No indication : Ceramic capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

(3)Coils

- No unit : [μ H]
- Others : As specified

(4)Power Supply

-  : B1
-  : B2 (12V)
-  : 9V
-  : 5V

* Respective voltage values are indicated

(5)Test point

-  : Test point
-  : Only test point display

(6)Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

(7)Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : () side GND and the ISOLATED(NEUTRAL) : () side GND. Therefore, care must be taken for the following points.

- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

NOTE

◆ Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.

When ordering parts, please use the numbers that appear in the Parts List.

CONTENTS

SEMICONDUCTOR SHAPES2-2

WIRING DIAGRAM2-3

BLOCK DIAGRAM.....2-5

CIRCUIT DIAGRAMS2-7

 MAIN PWB CIRCUIT DIAGRAM 2-7

 IR PWB CIRCUIT DIAGRAM 2-63

 KEY PWB CIRCUIT DIAGRAM 2-65

 LED PWB CIRCUIT DIAGRAM 2-67

PATTERN DIAGRAMS 2-69

 MAIN PWB PATTERN 2-69

 IR PWB PATTERN 2-73

 KEY PWB PATTERN 2-73

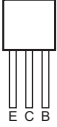
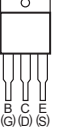
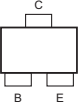
 LED PWB PATTERN 2-74

USING P.W. BOARD

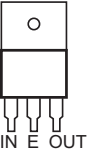
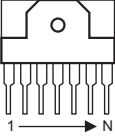
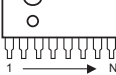
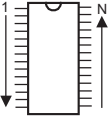
P.W.B ASS' Y name	LT-32DB1BU/AX
MAIN P.W. BOARD	HU-71100005
IR P.W. BOARD	HU-72200004
KEY P.W. BOARD	HU-72200003
LED P.W. BOARD	HU-72200017

SEMICONDUCTOR SHAPES

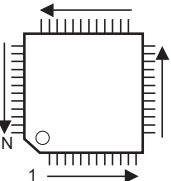
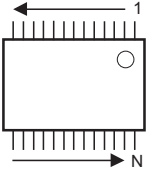
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

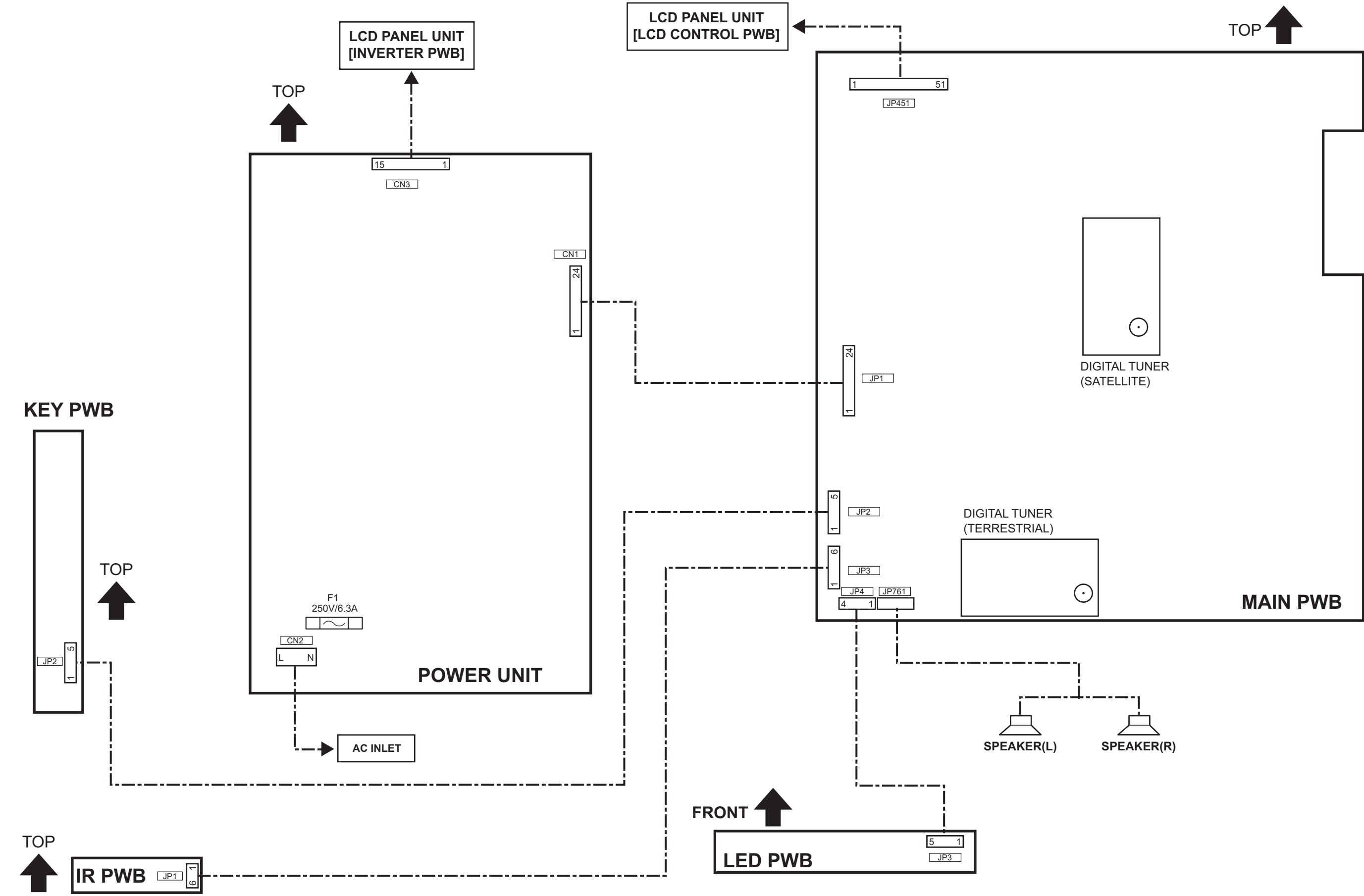
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

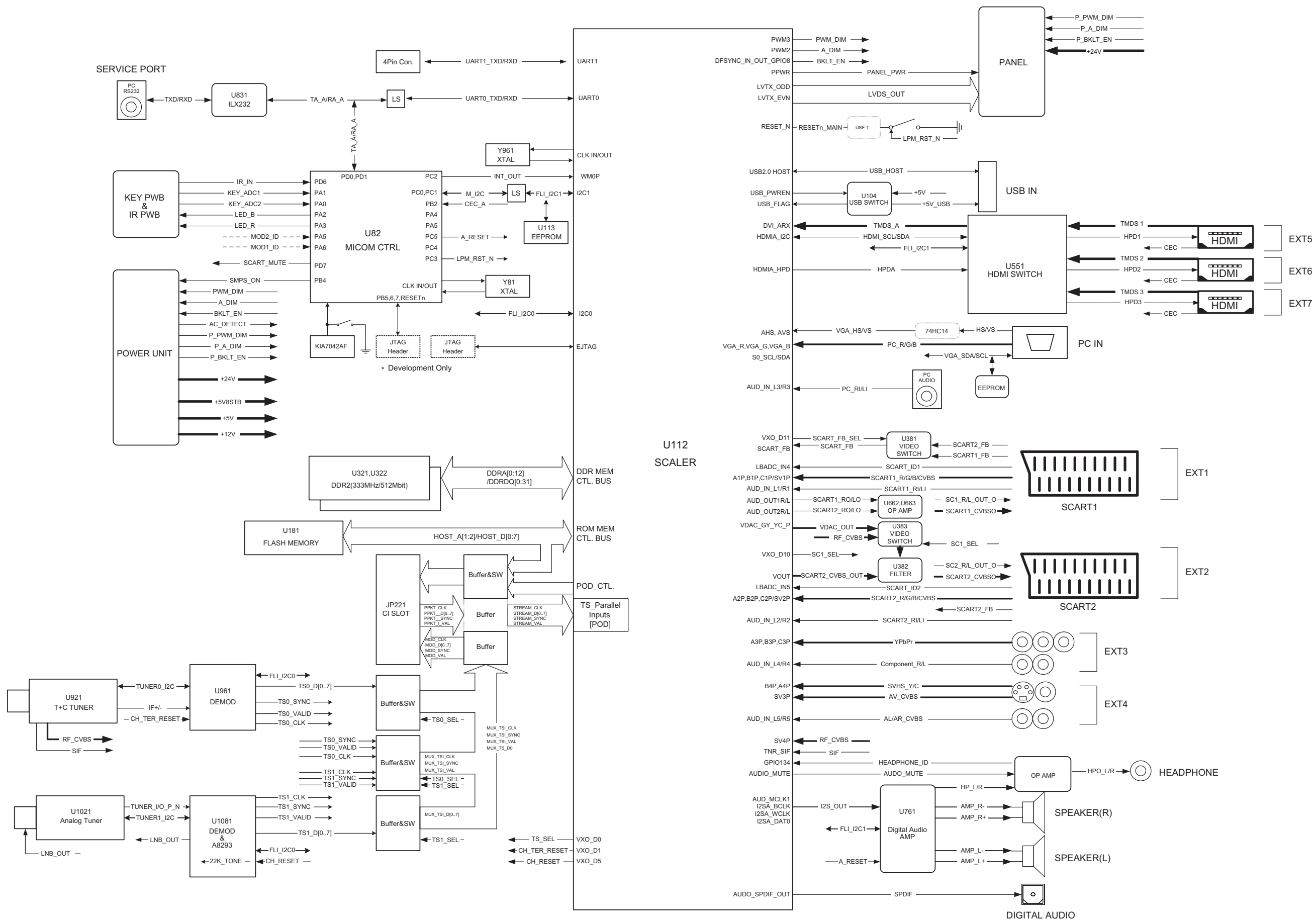
CHIP IC

TOP VIEW		
		

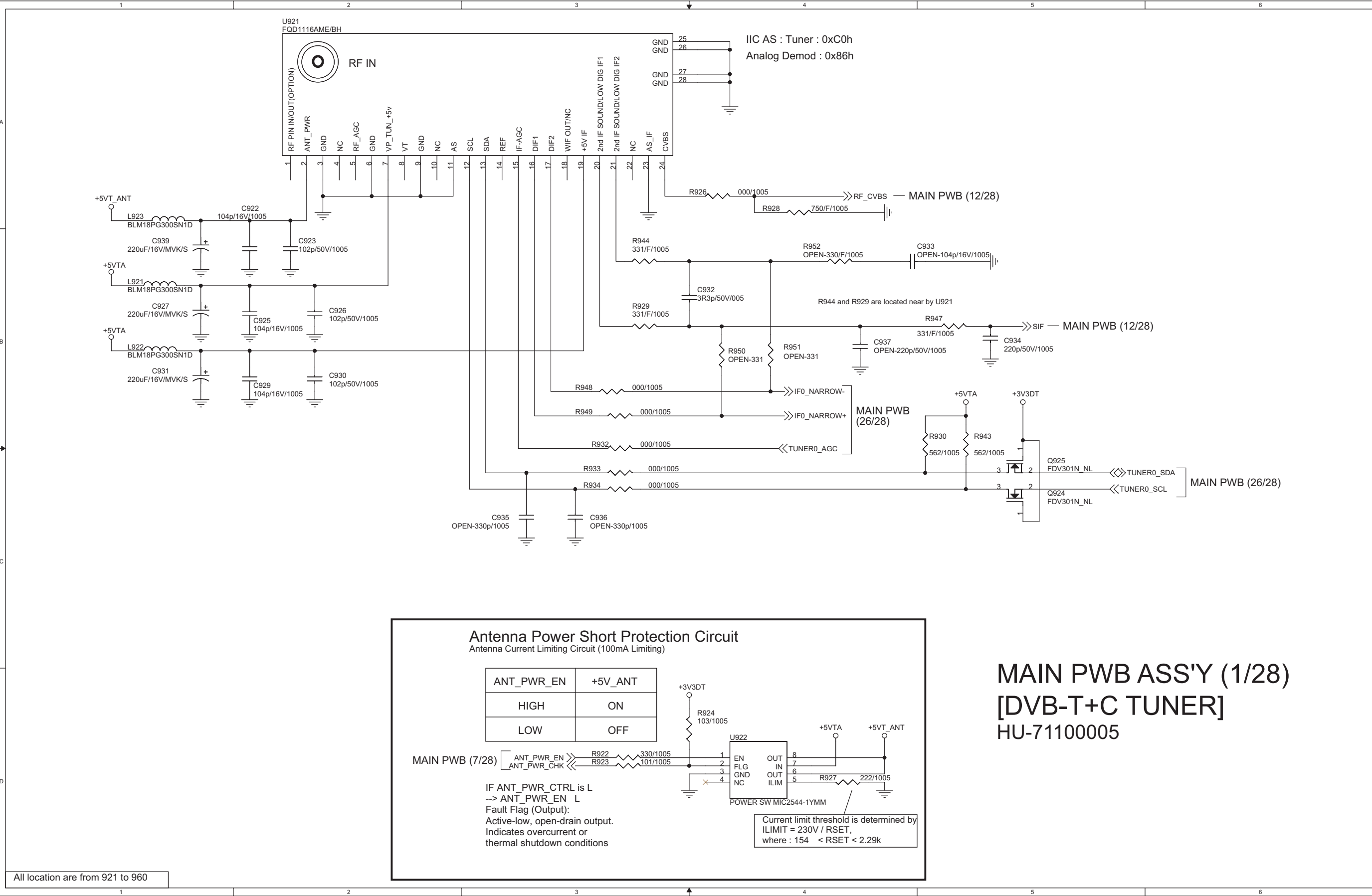
WIRING DIAGRAM



BLOCK DIAGRAM

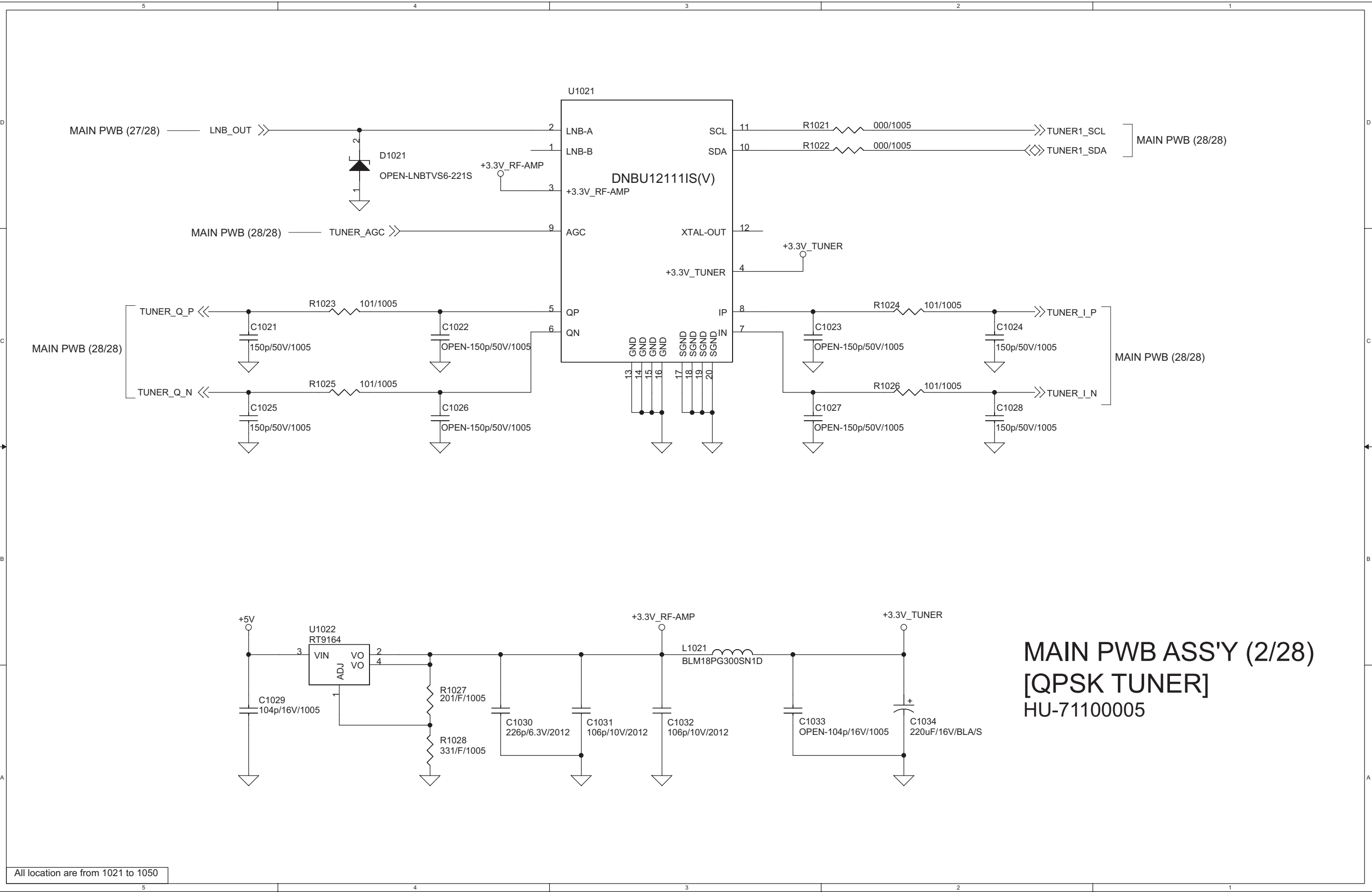


CIRCUIT DIAGRAMS
MAIN PWB CIRCUIT DIAGRAM (1/28) [DVB-T+C TUNER]

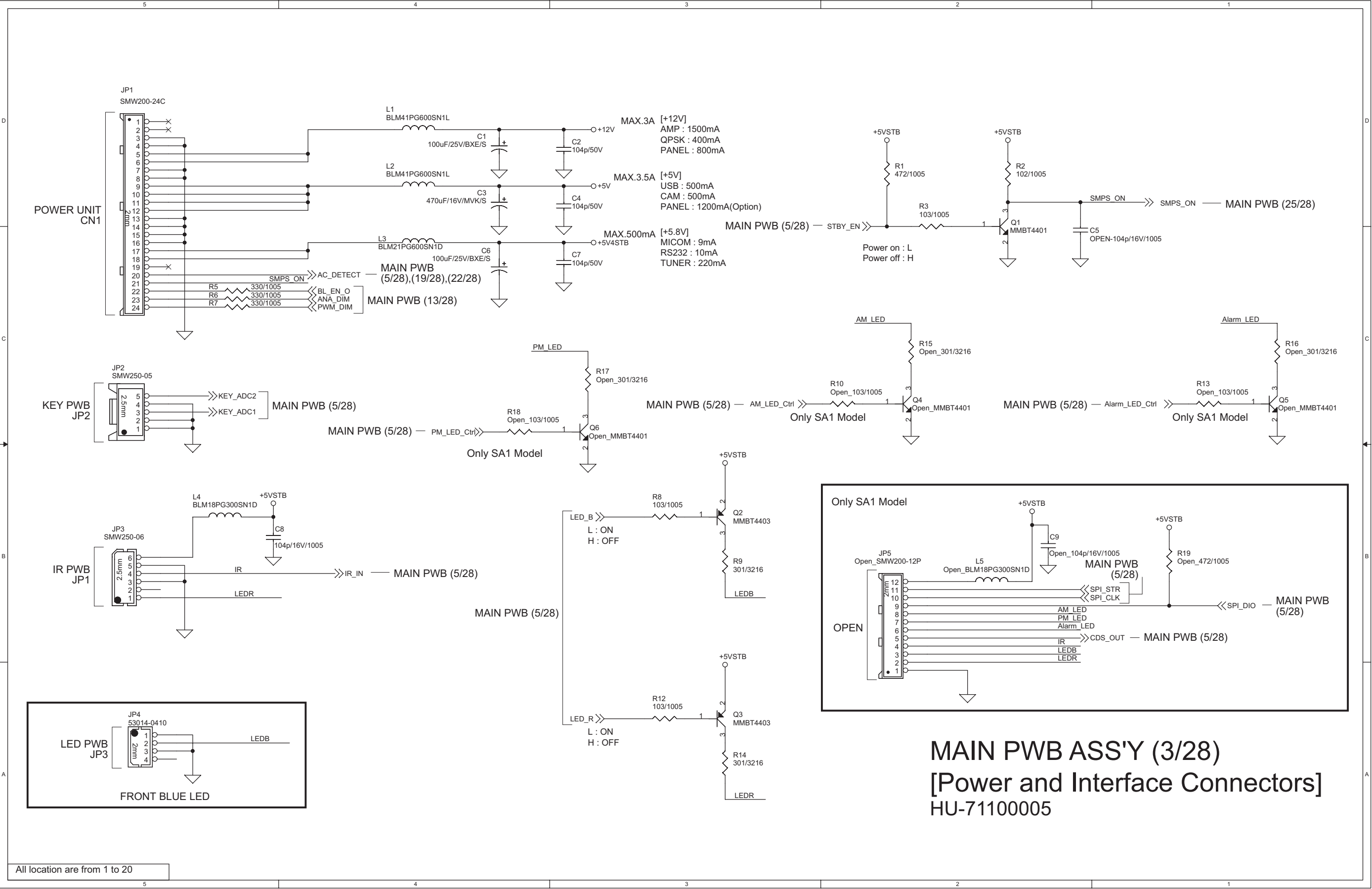


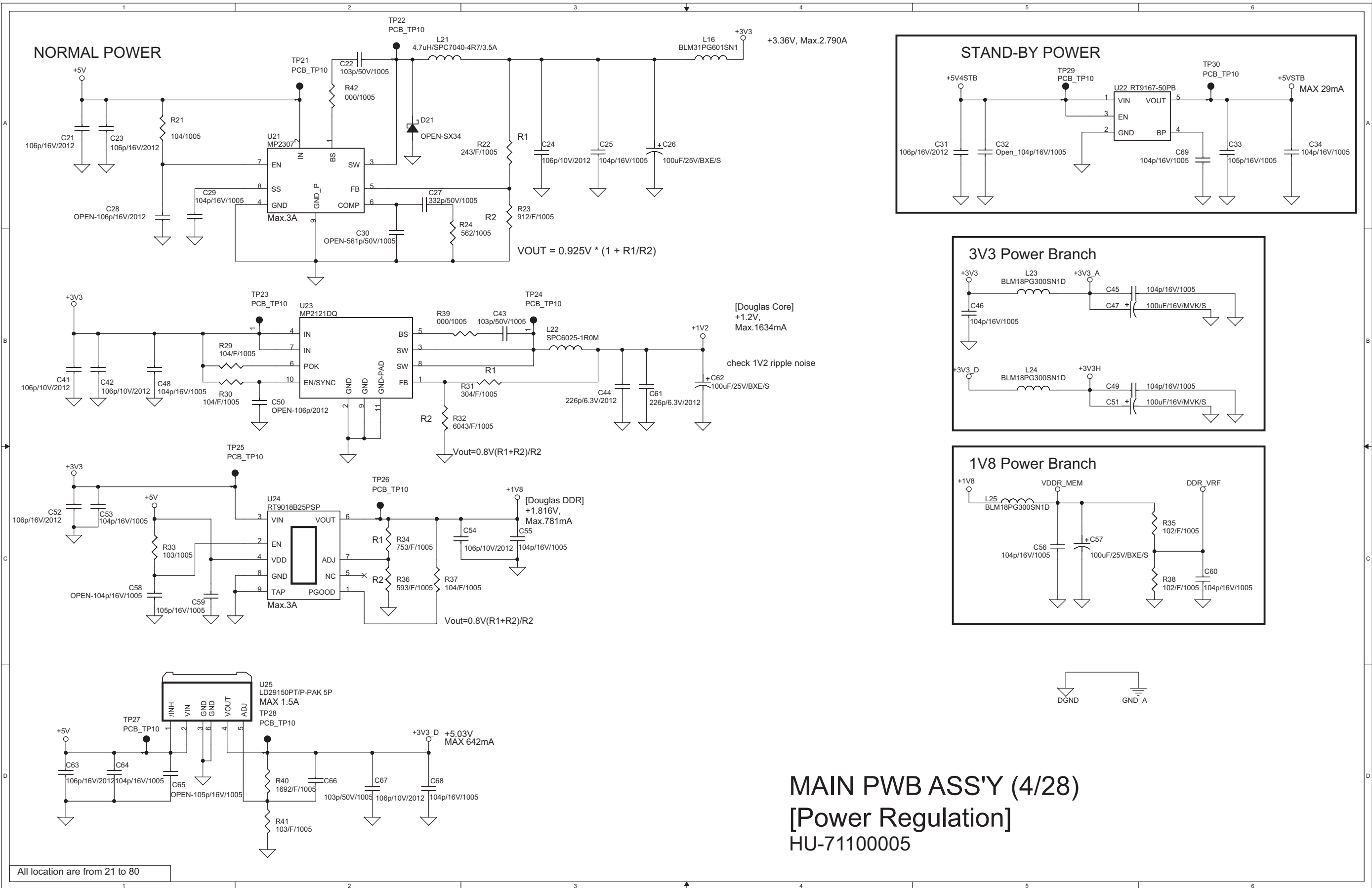
MAIN PWB ASS'Y (1/28)
[DVB-T+C TUNER]
HU-71100005

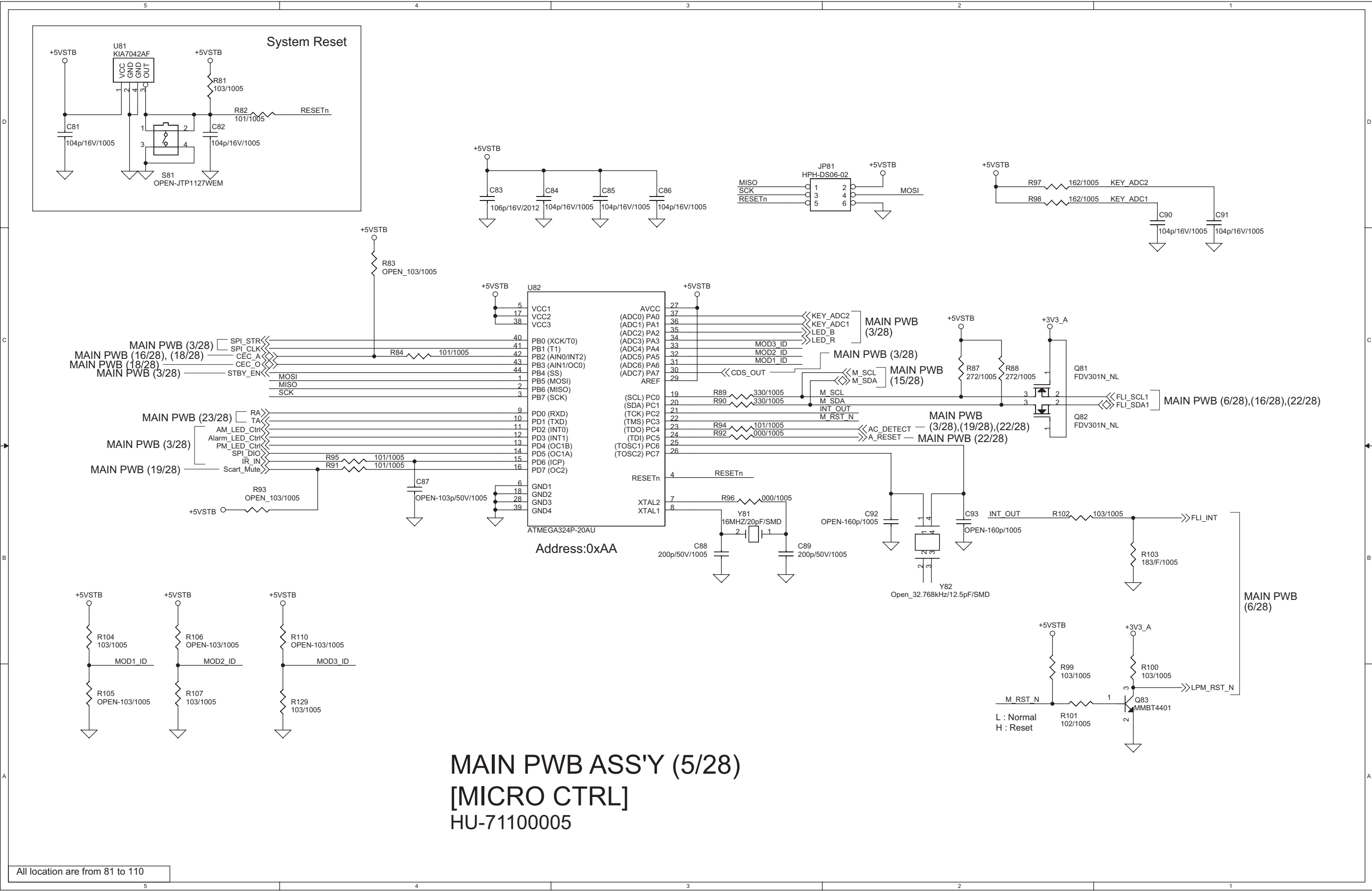
All location are from 921 to 960



All location are from 1021 to 1050

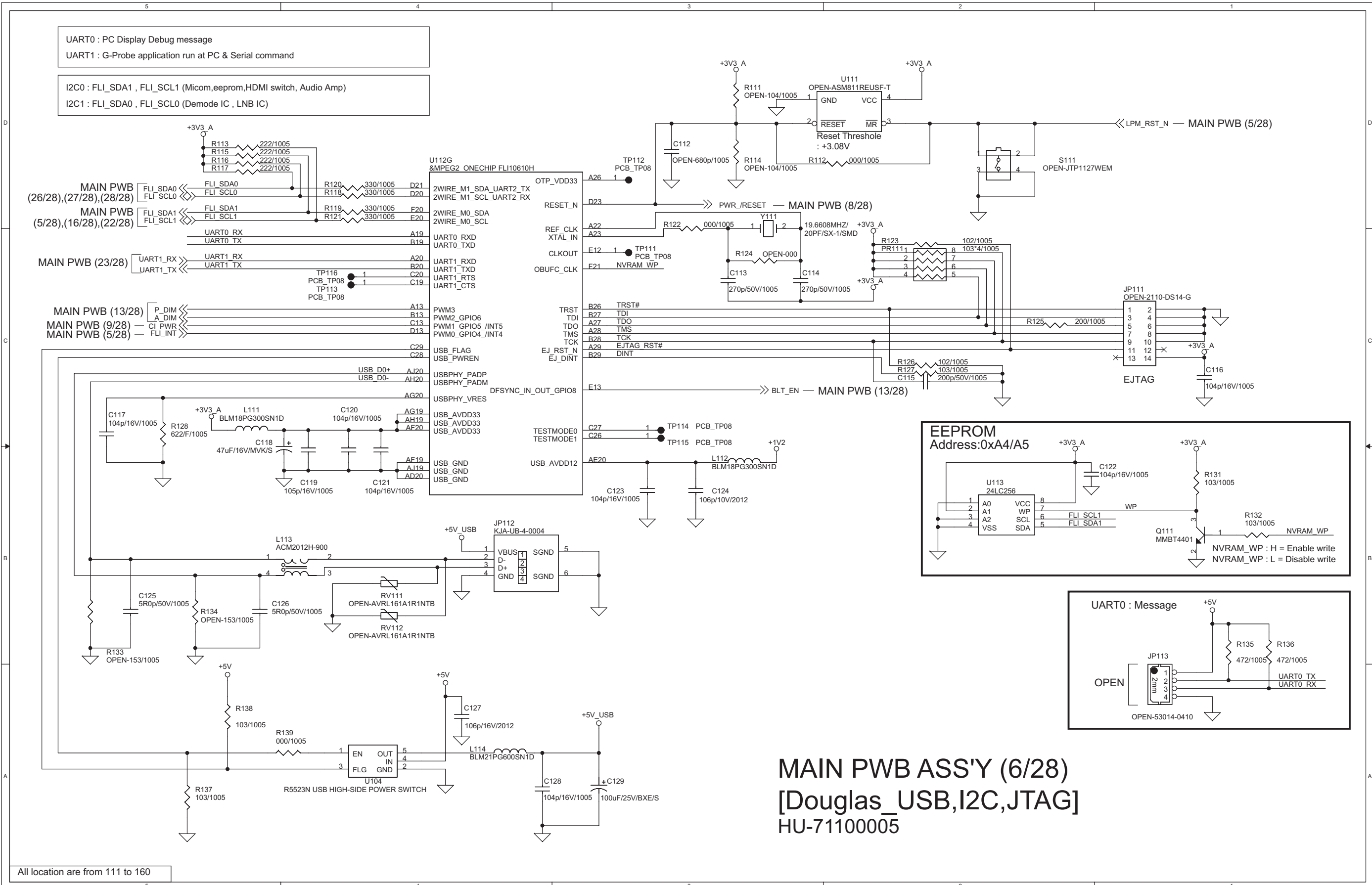




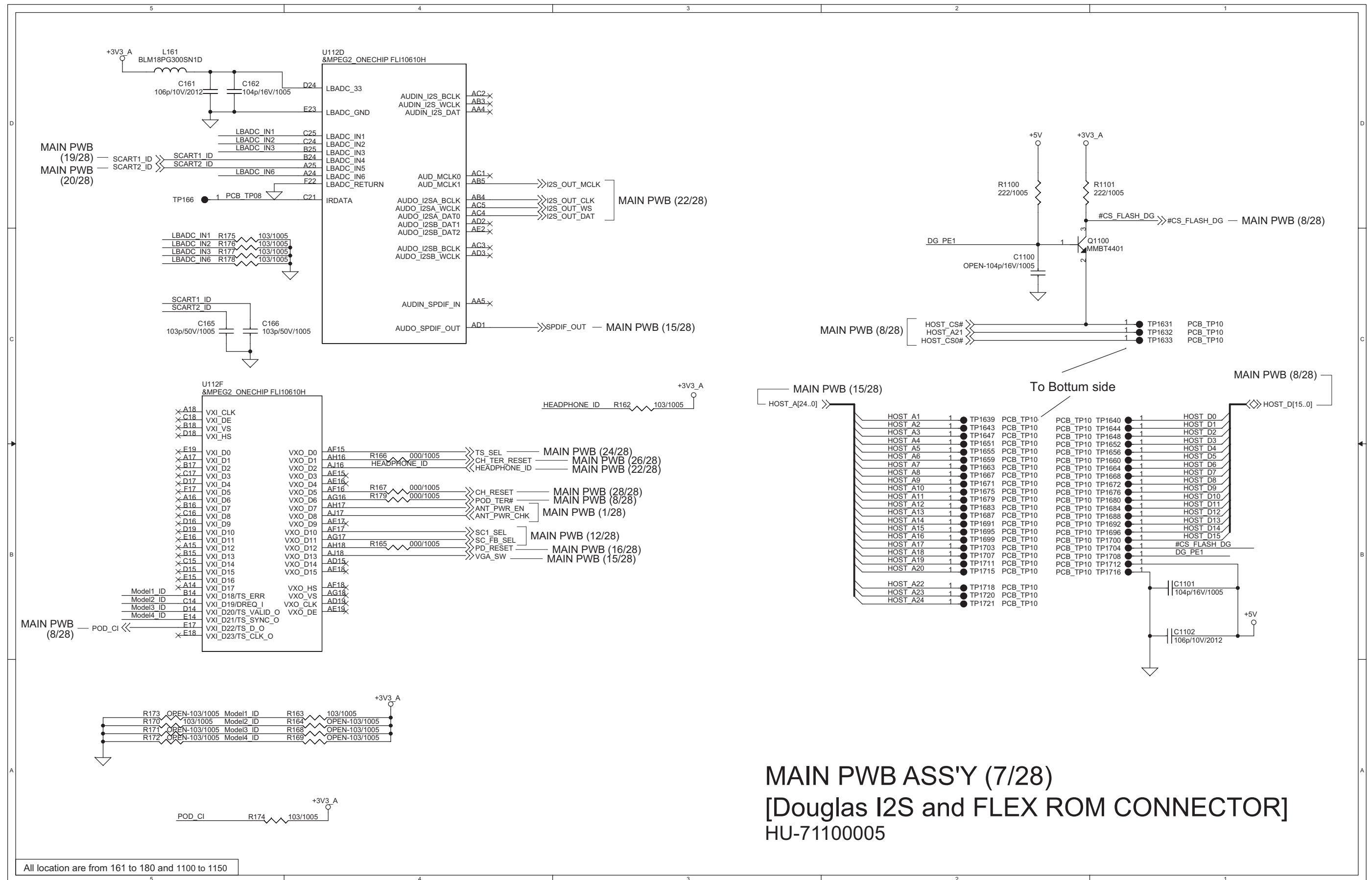


MAIN PWB ASS'Y (5/28)
[MICRO CTRL]
HU-71100005

MAIN PWB CIRCUIT DIAGRAM (6/28) [Douglas_USB,I2C,JTAG]

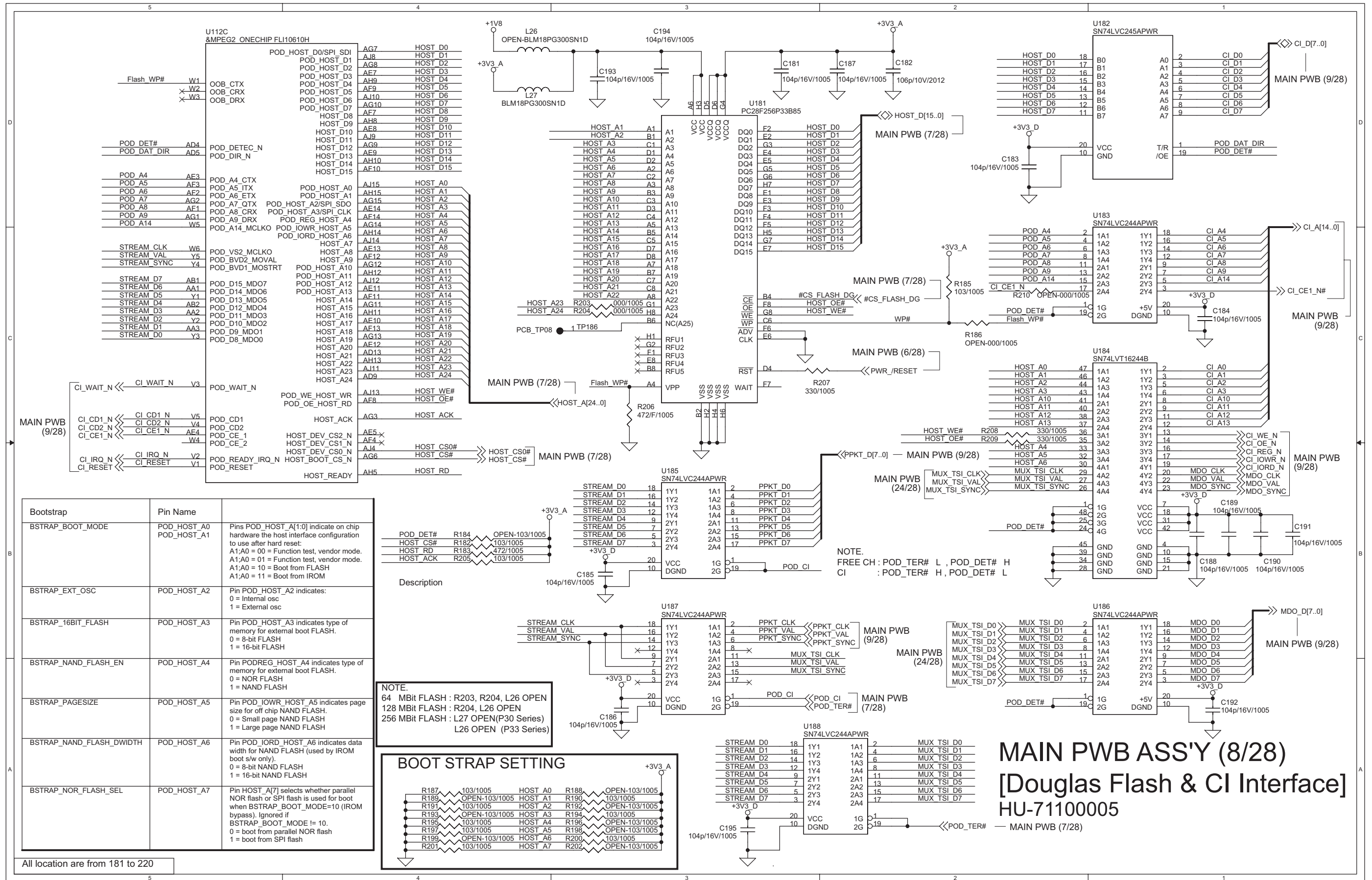


MAIN PWB CIRCUIT DIAGRAM (7/28) [Douglas I2S and FLEX ROM CONNECTOR]

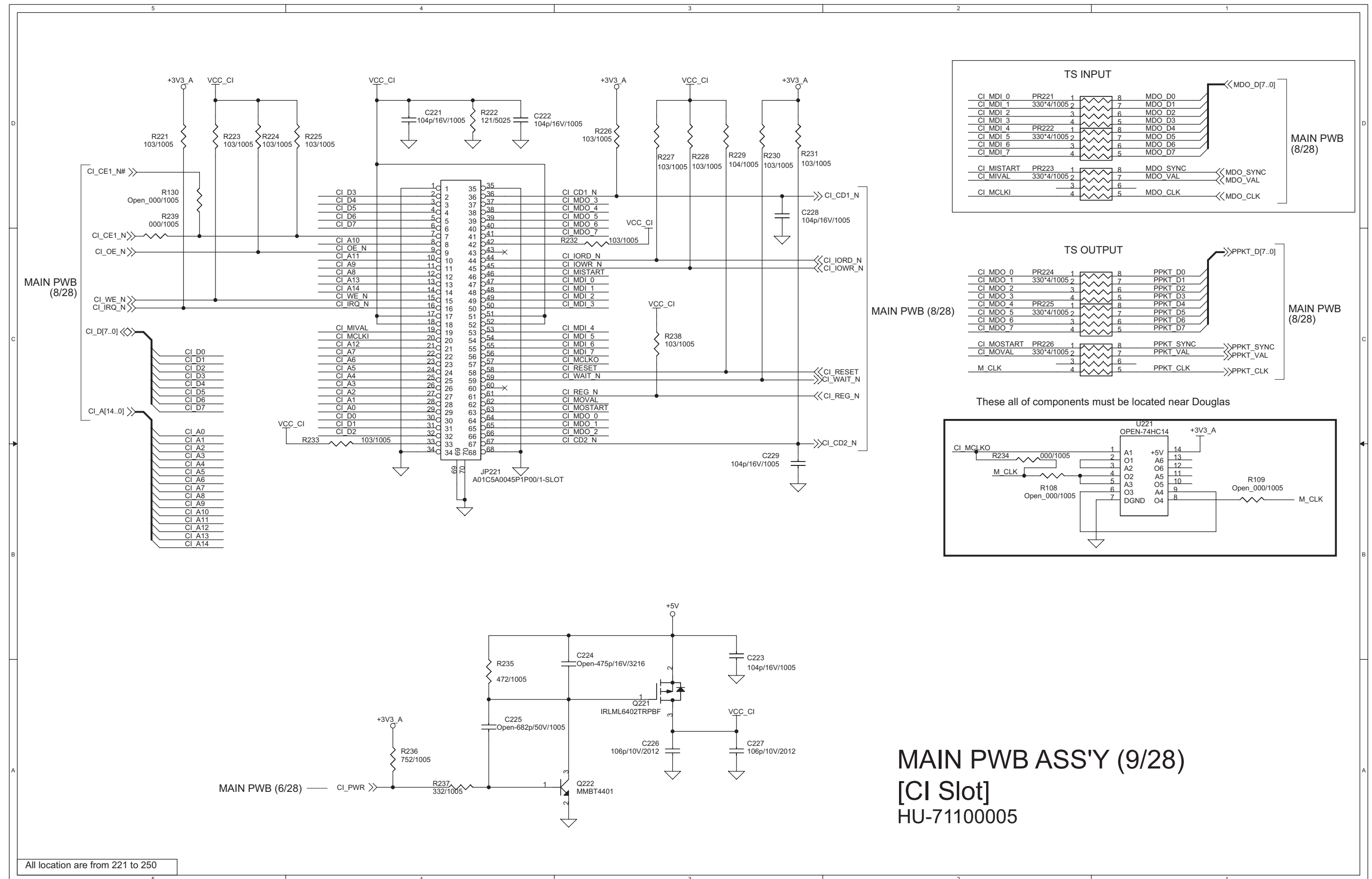


MAIN PWB ASS'Y (7/28)
[Douglas I2S and FLEX ROM CONNECTOR]
HU-71100005

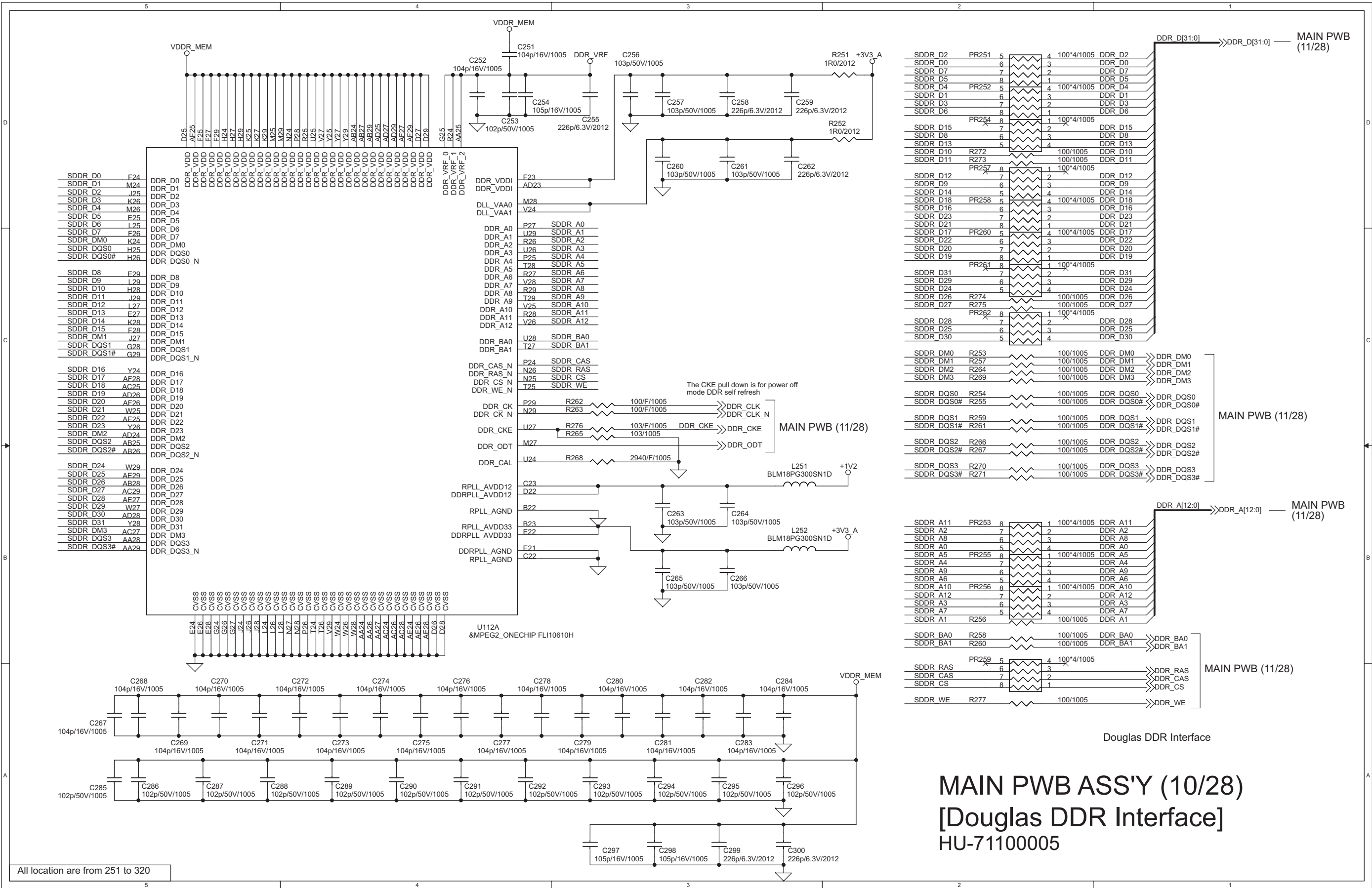
MAIN PWB CIRCUIT DIAGRAM (8/28) [Douglas Flash & CI Interface]



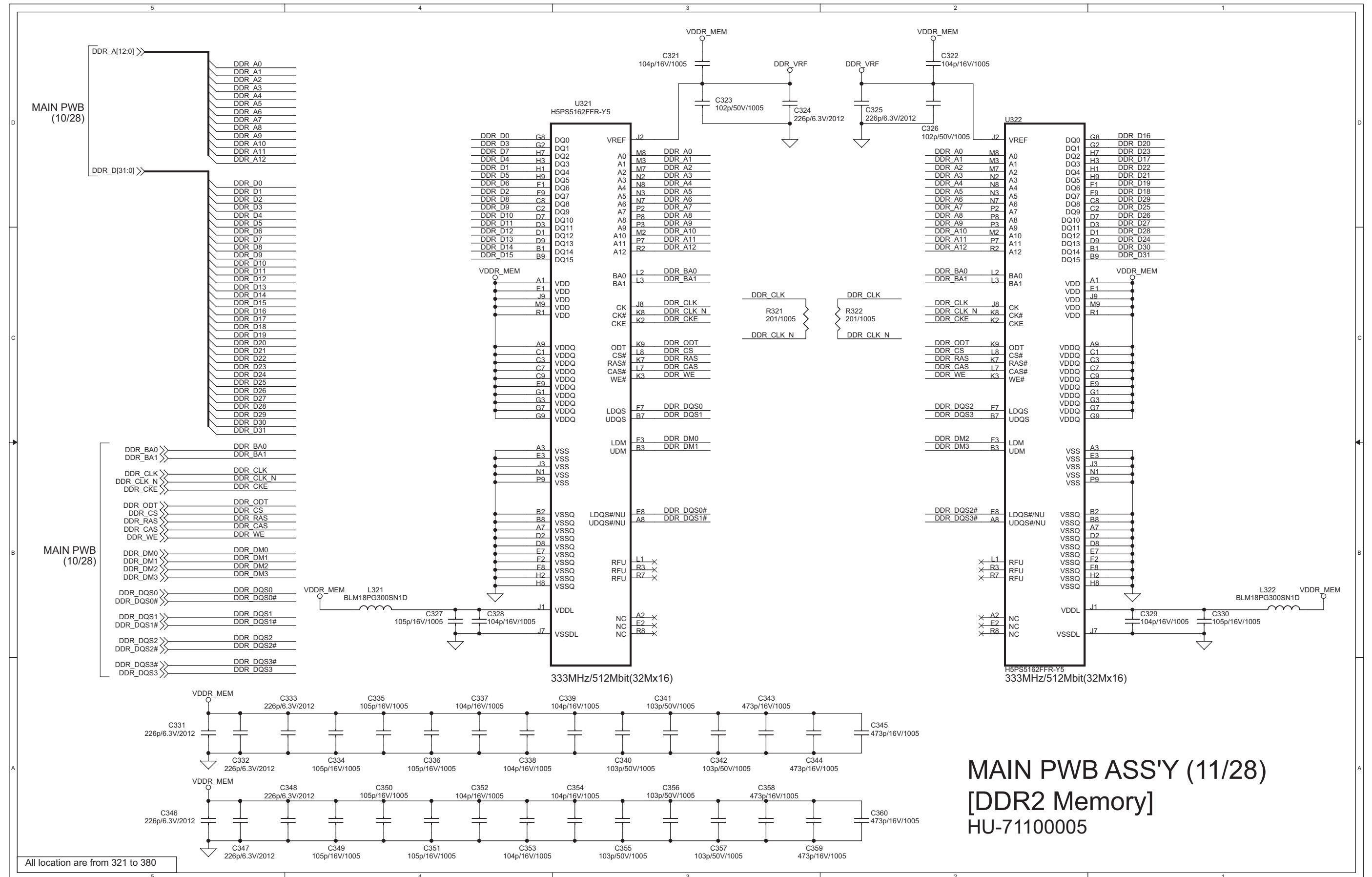
MAIN PWB CIRCUIT DIAGRAM (9/28) [CI Slot]



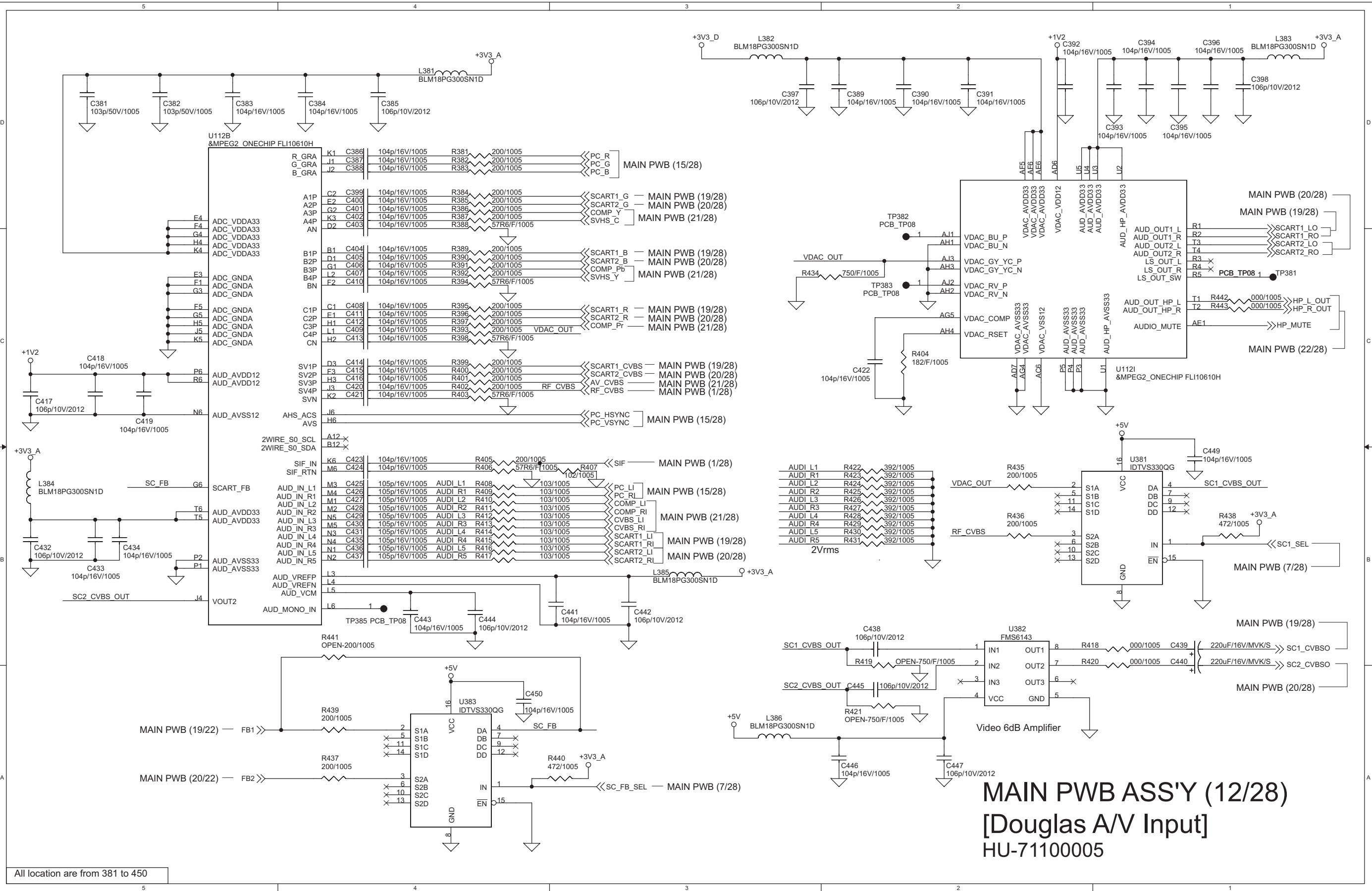
MAIN PWB CIRCUIT DIAGRAM (10/28) [Douglas DDR Interface]



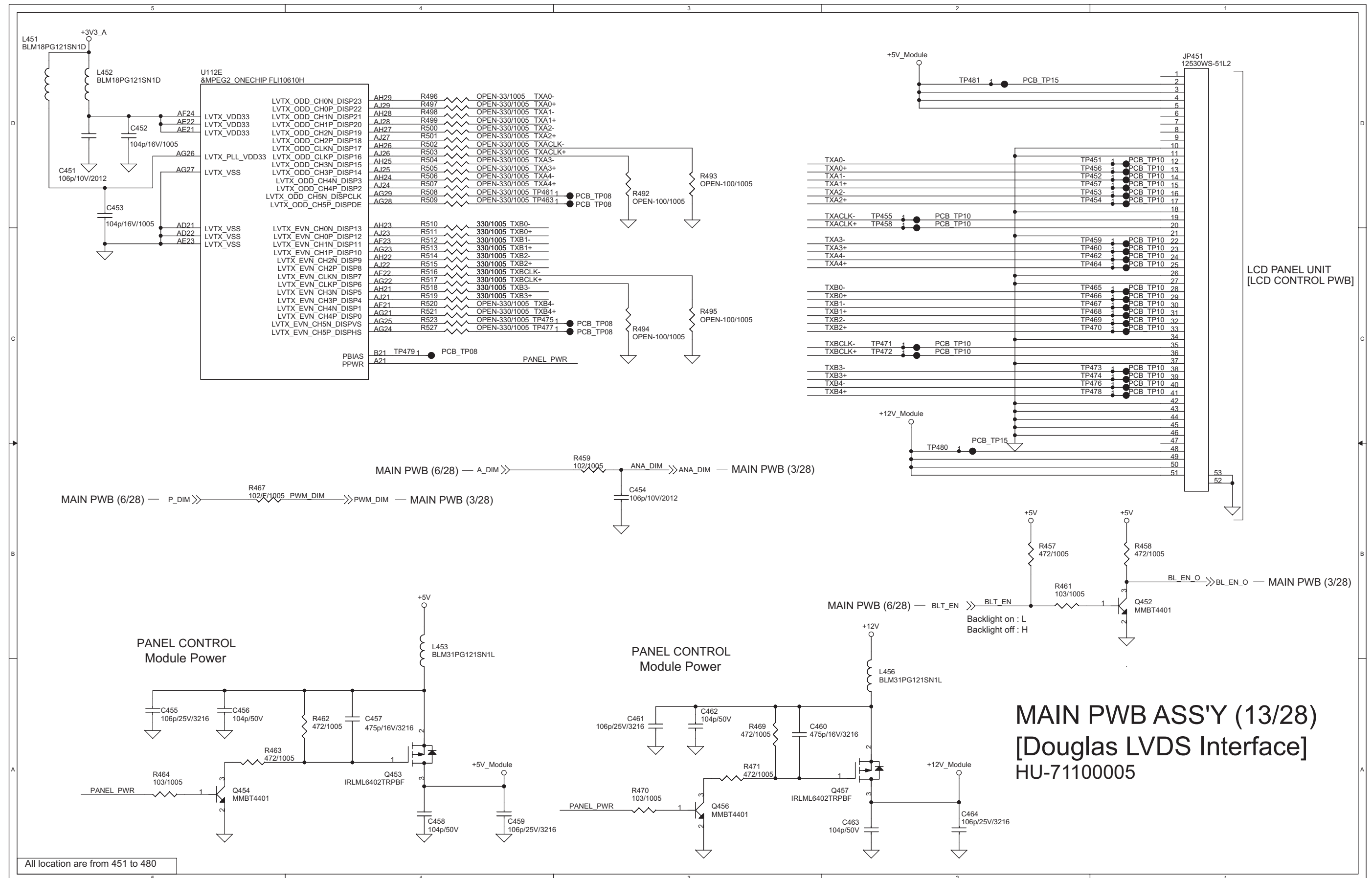
MAIN PWB CIRCUIT DIAGRAM (11/28) [DDR2 Memory]



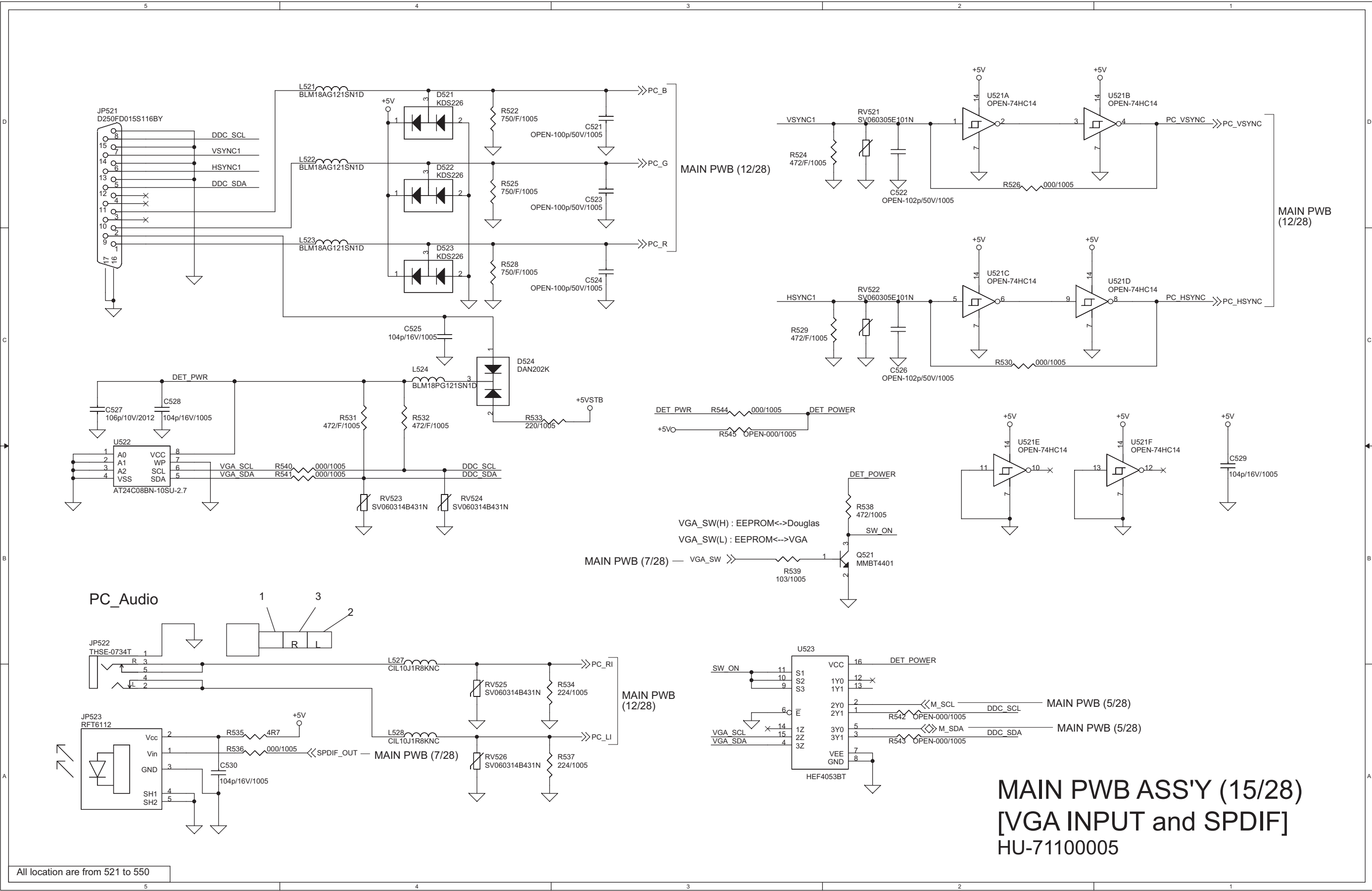
MAIN PWB CIRCUIT DIAGRAM (12/28) [Douglas A/V Input]



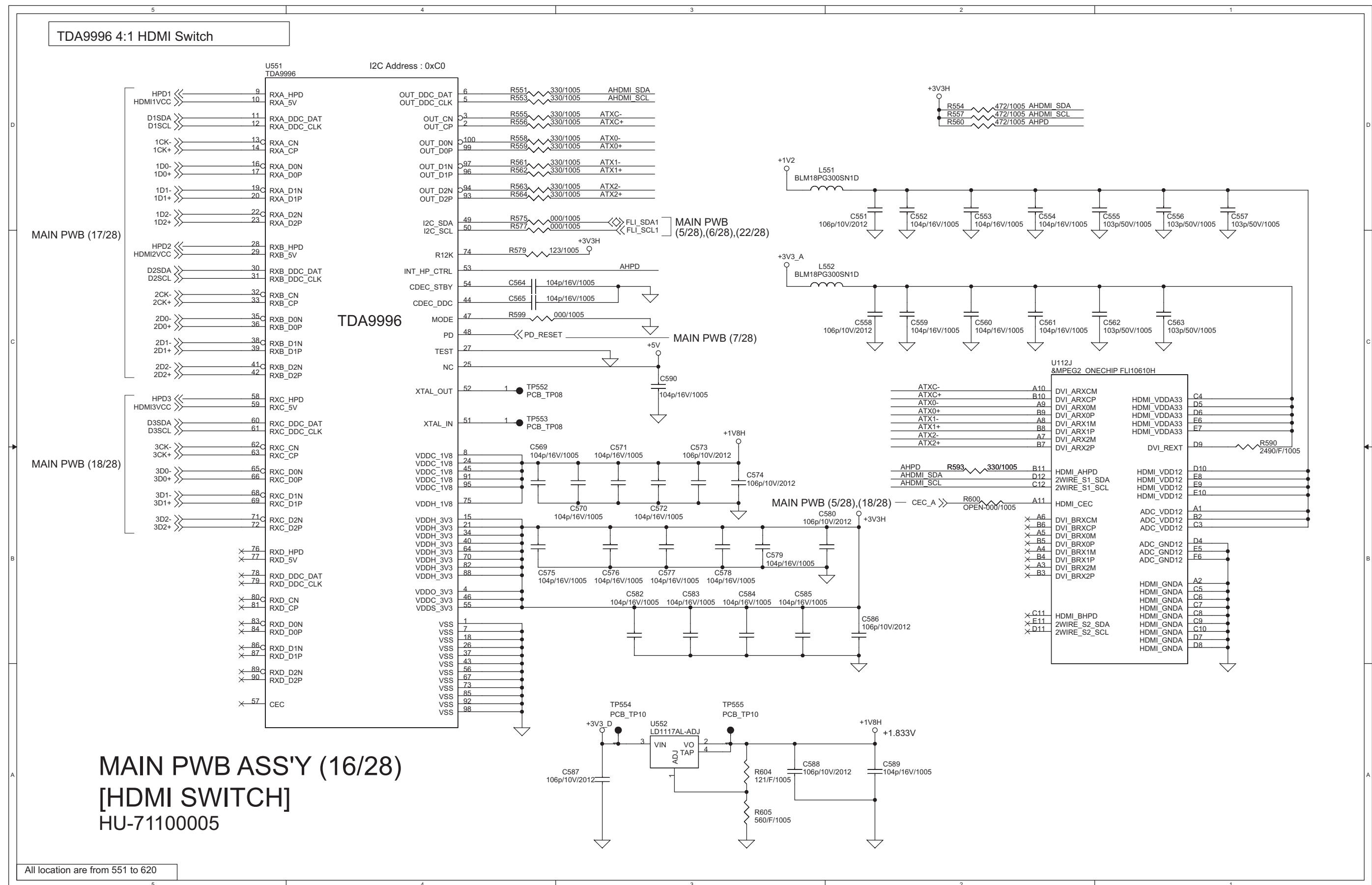
MAIN PWB CIRCUIT DIAGRAM (13/28) [Douglas LVDS Interface]

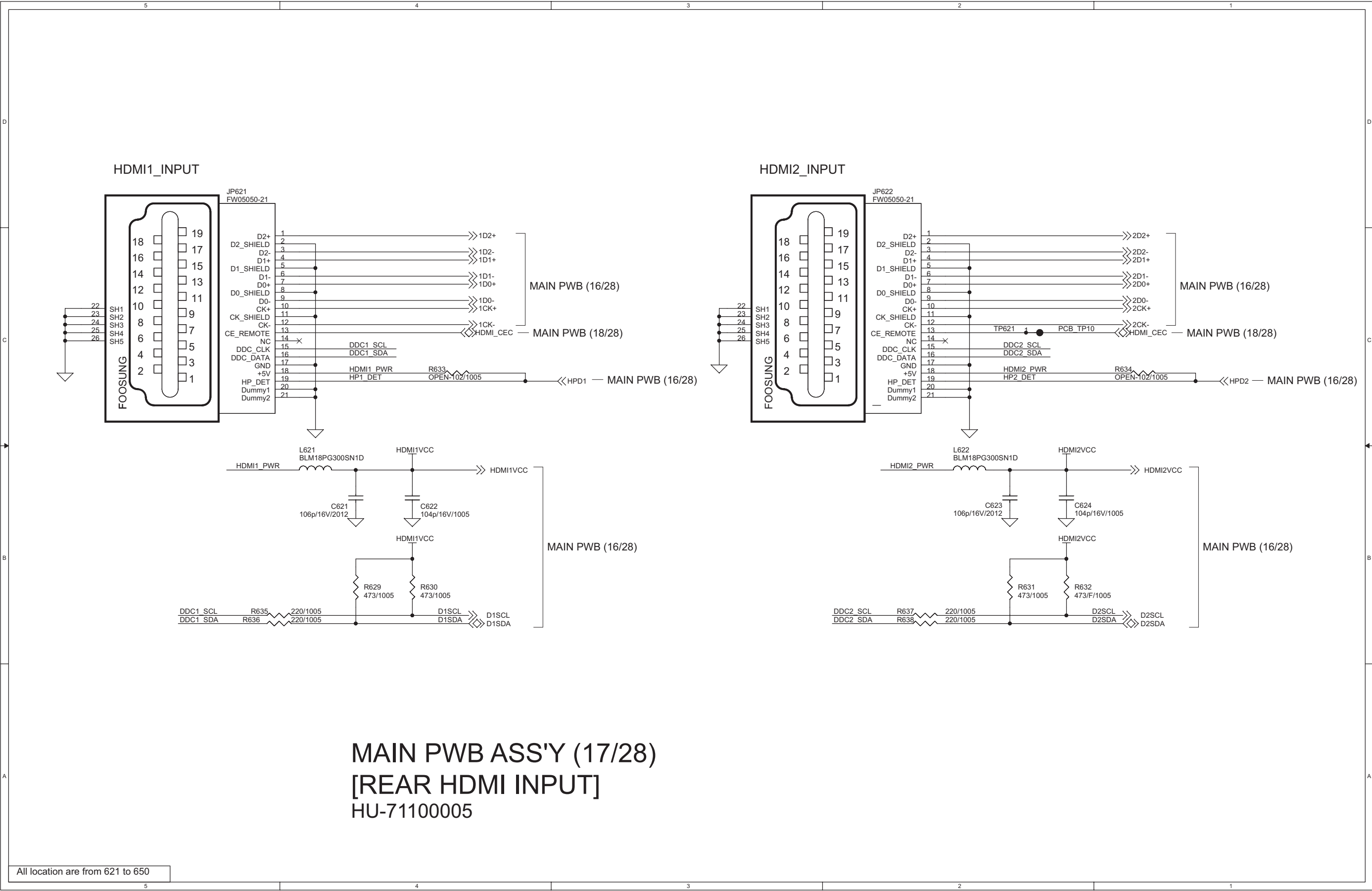


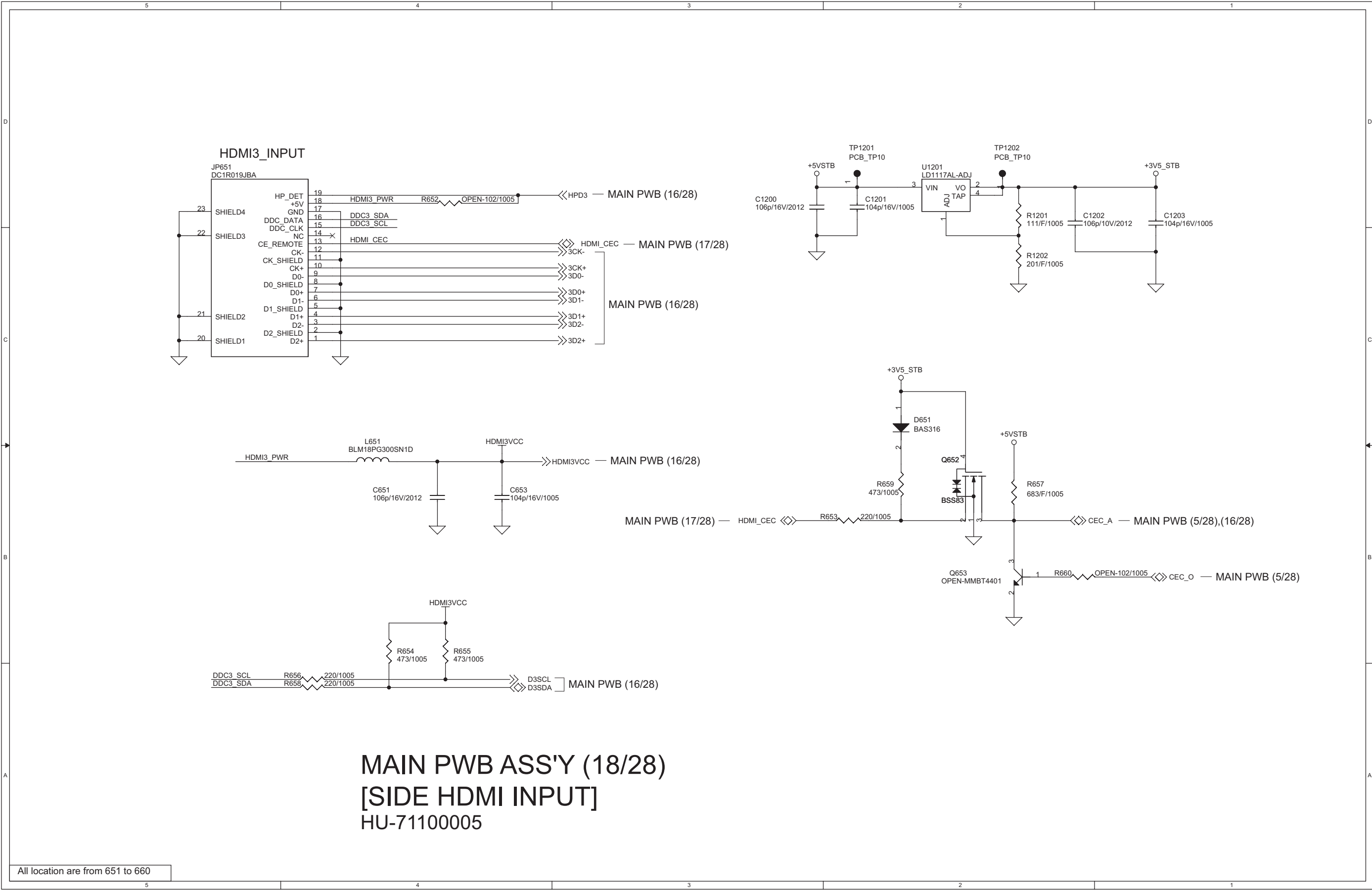
MAIN PWB CIRCUIT DIAGRAM (15/28) [VGA INPUT and SPDIF]



MAIN PWB ASS'Y (15/28)
[VGA INPUT and SPDIF]
HU-71100005

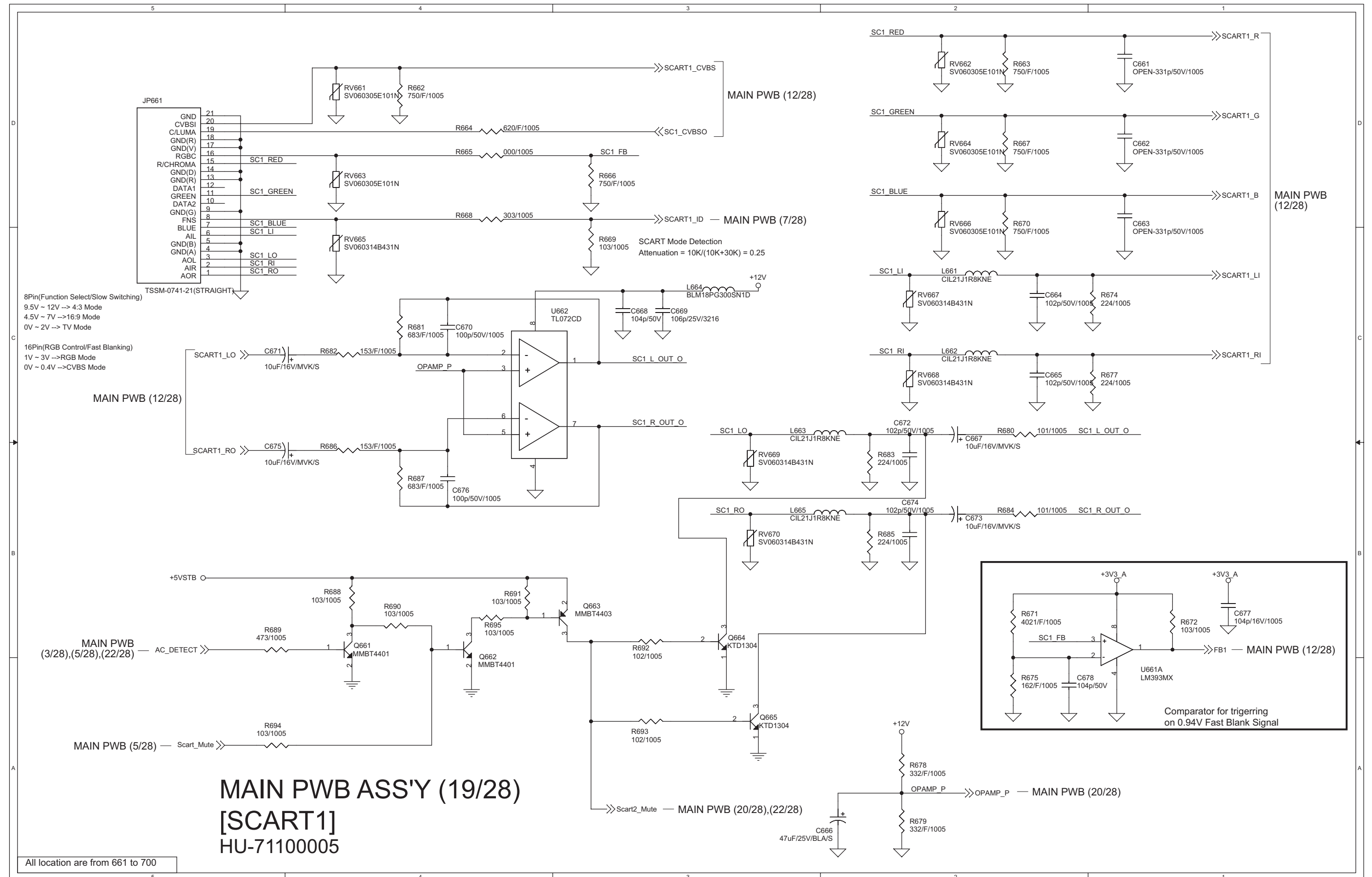




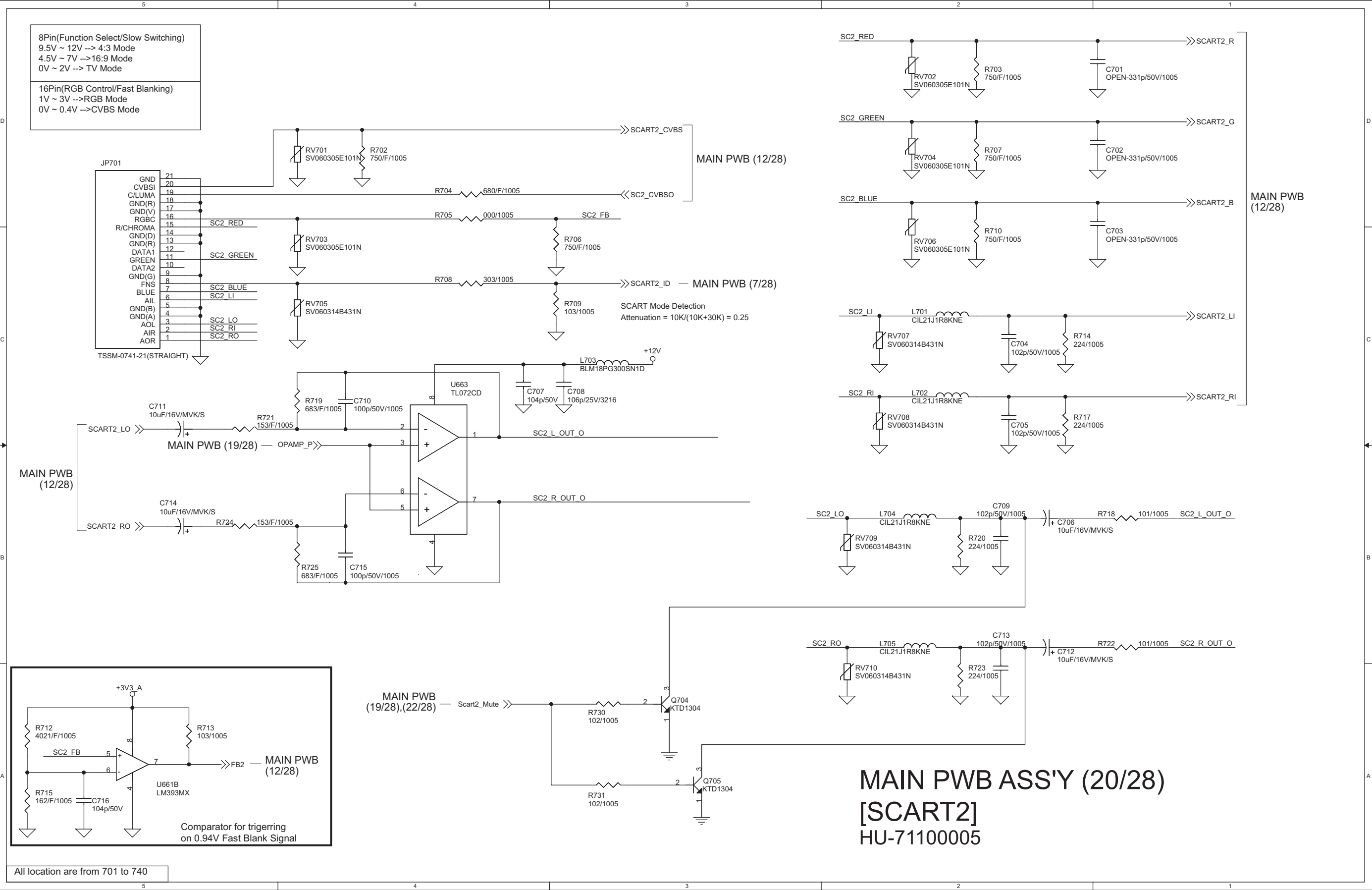


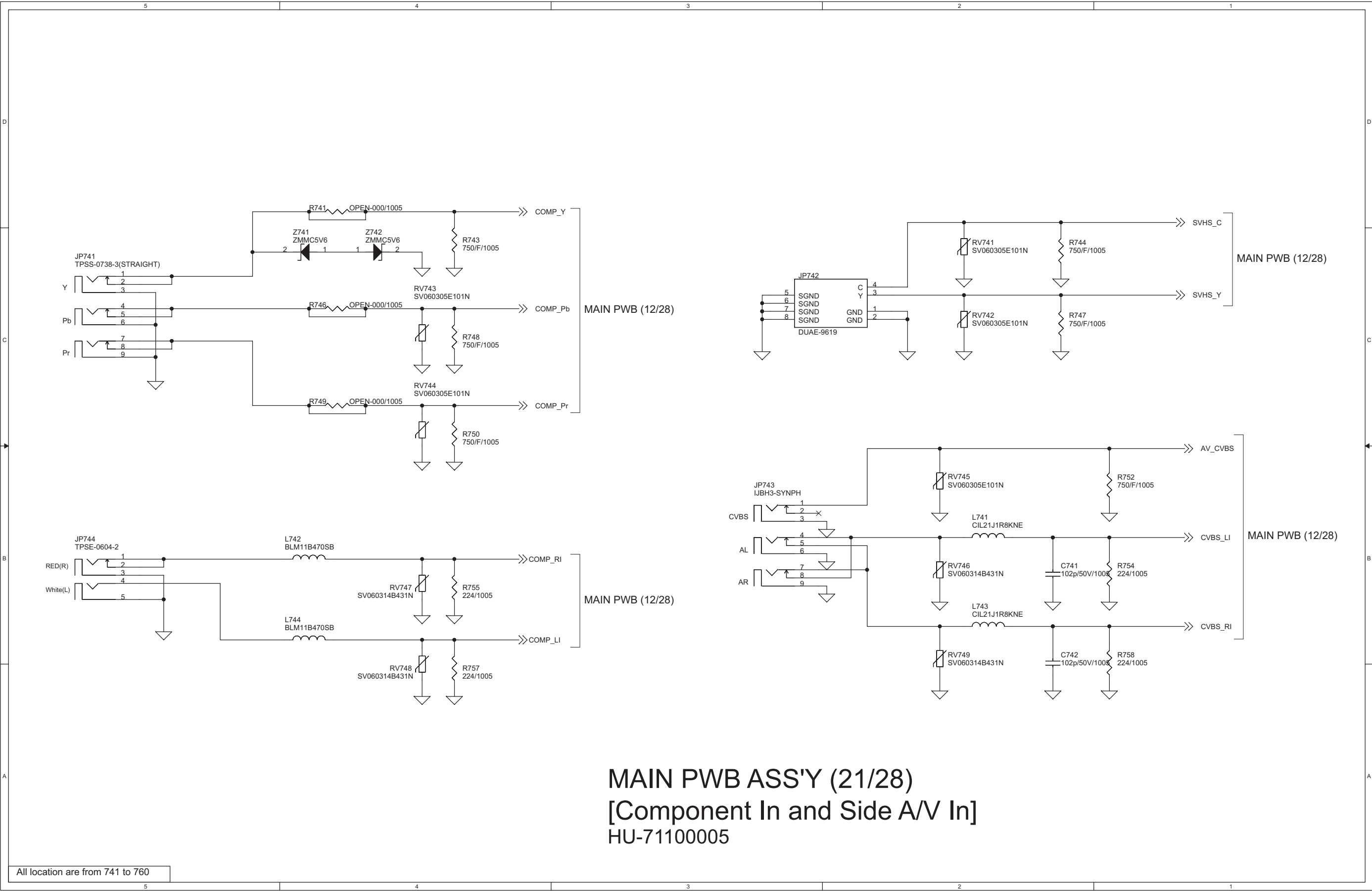
All location are from 651 to 660

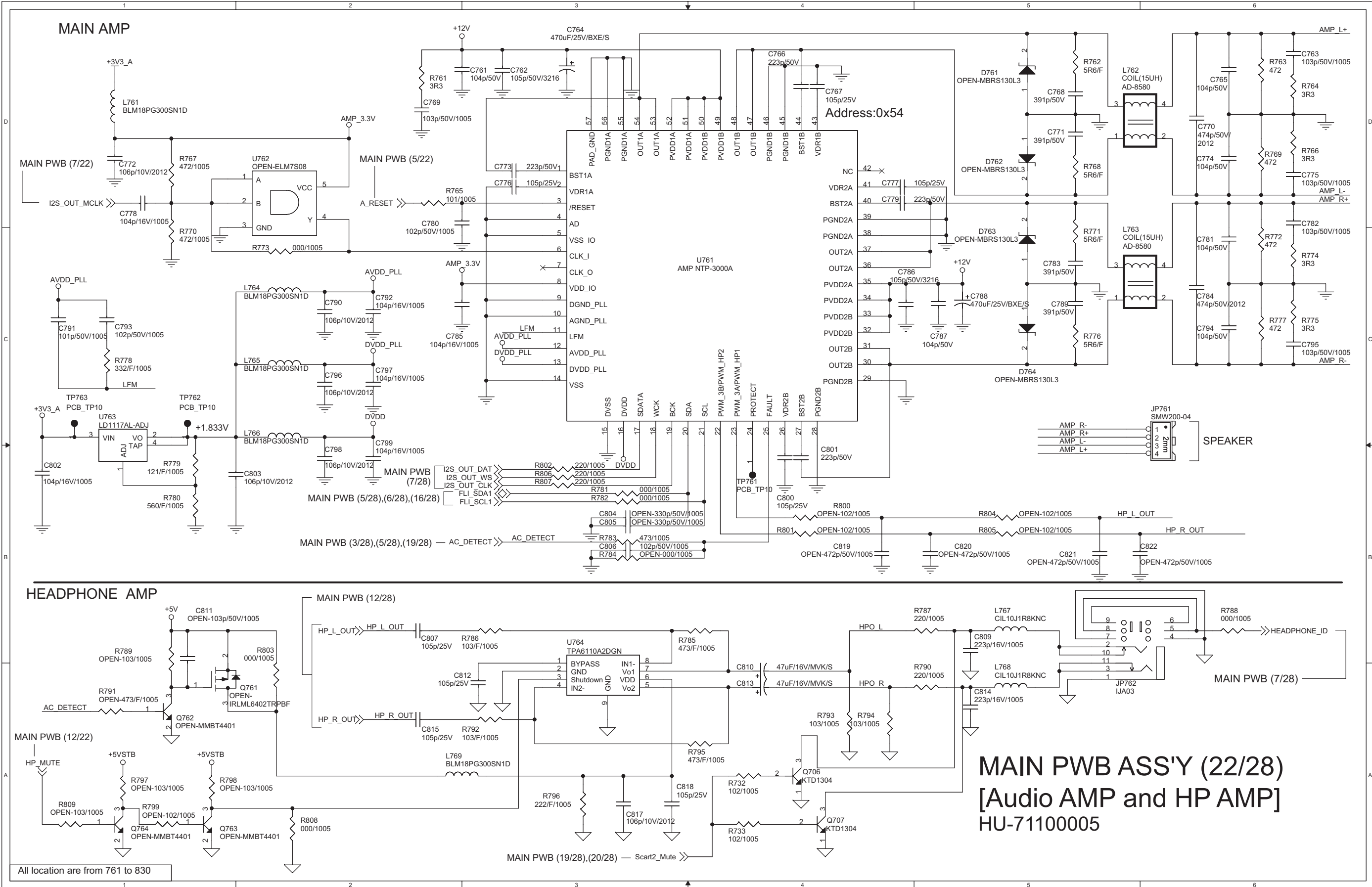
MAIN PWB CIRCUIT DIAGRAM (19/28) [SCART1]

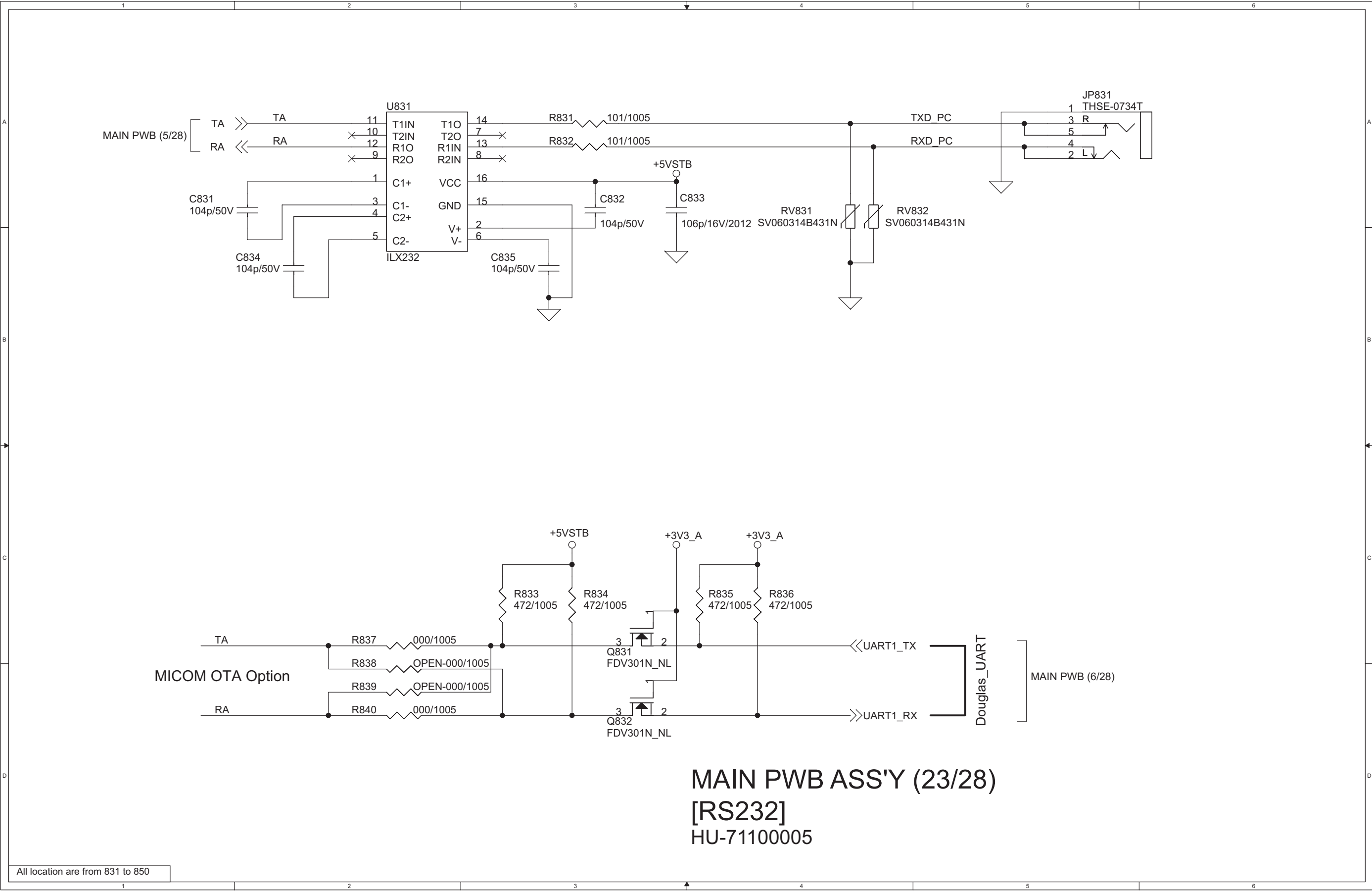


MAIN PWB CIRCUIT DIAGRAM (20/28) [SCART2]



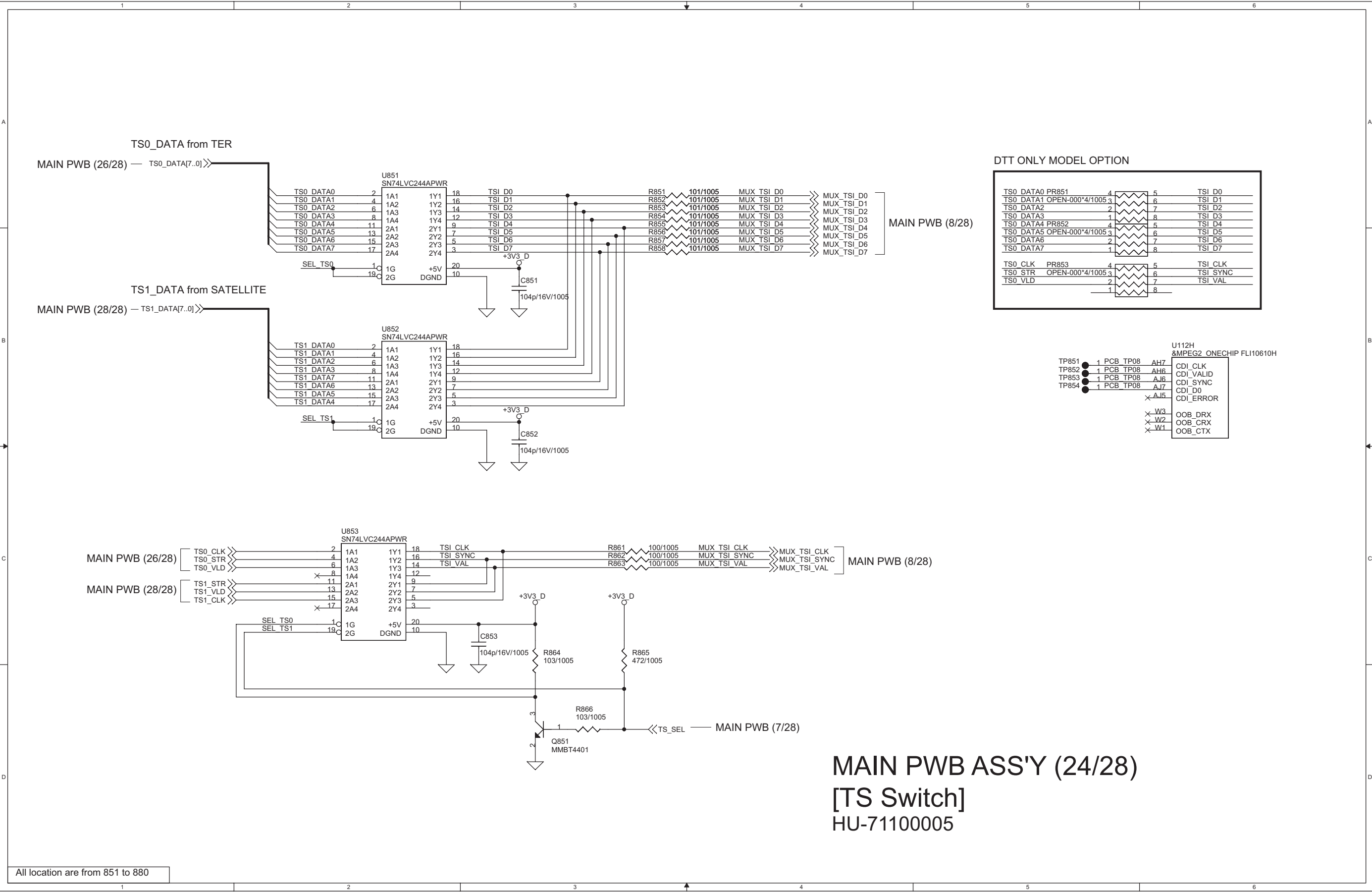


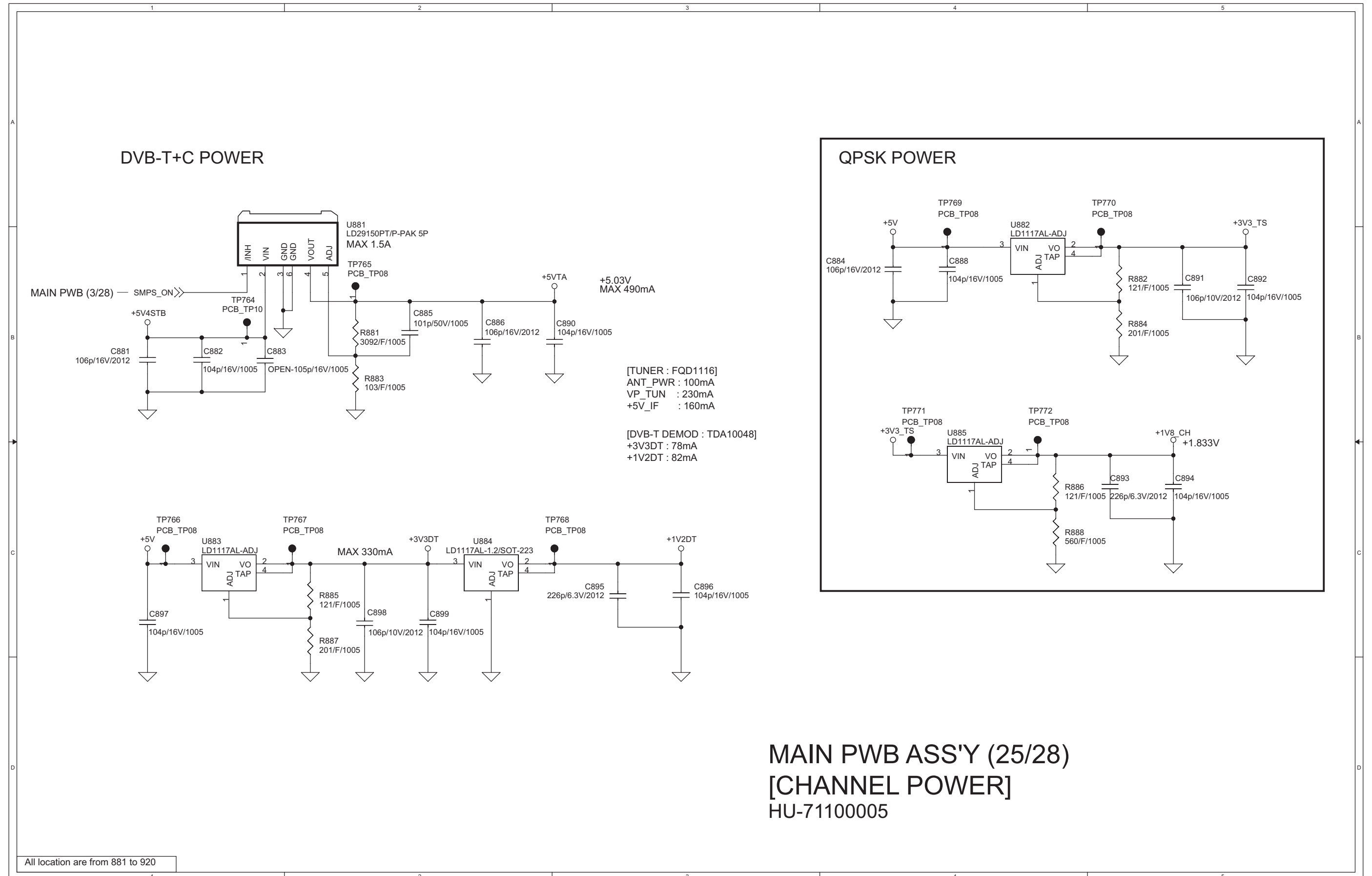


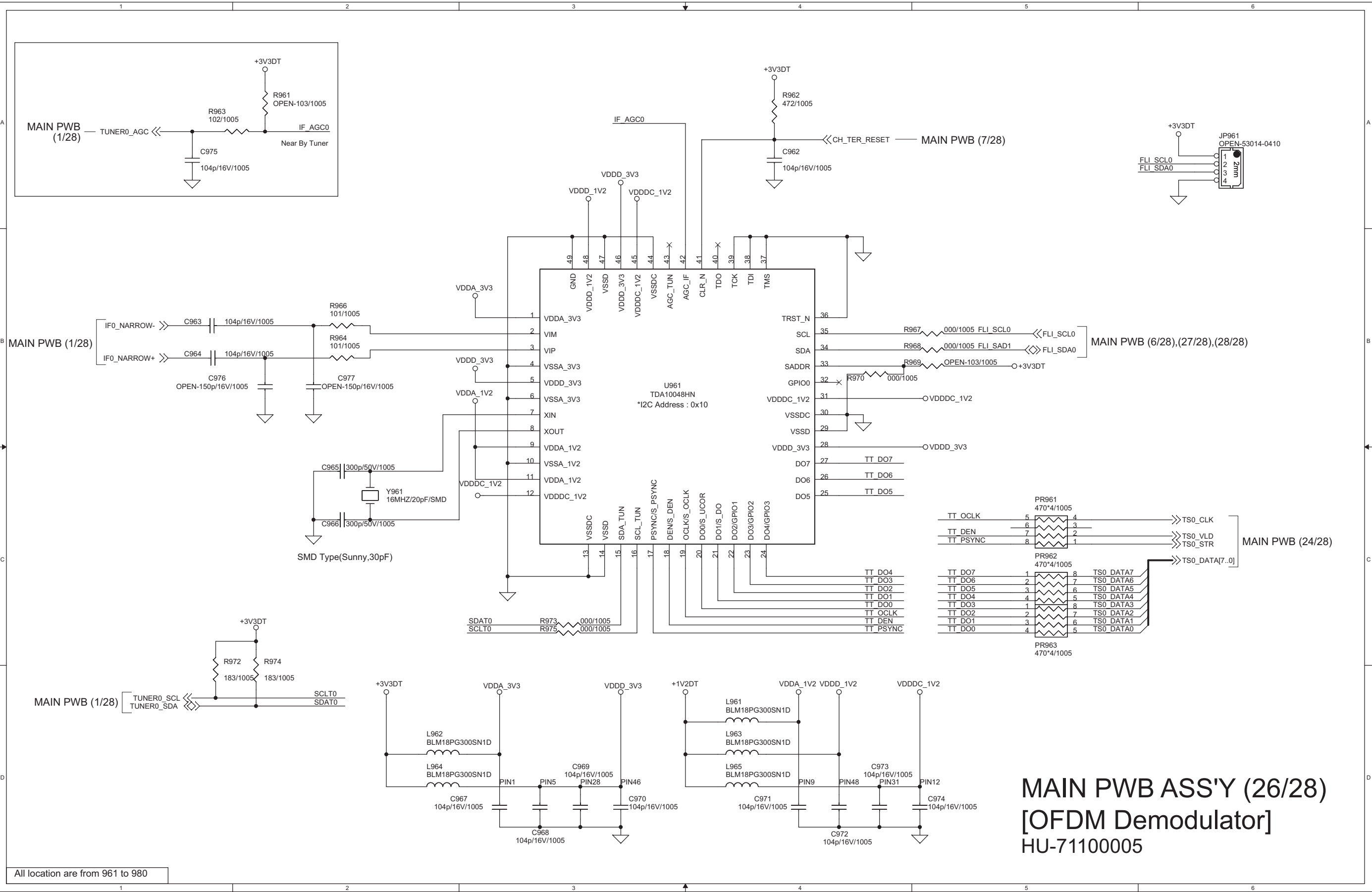


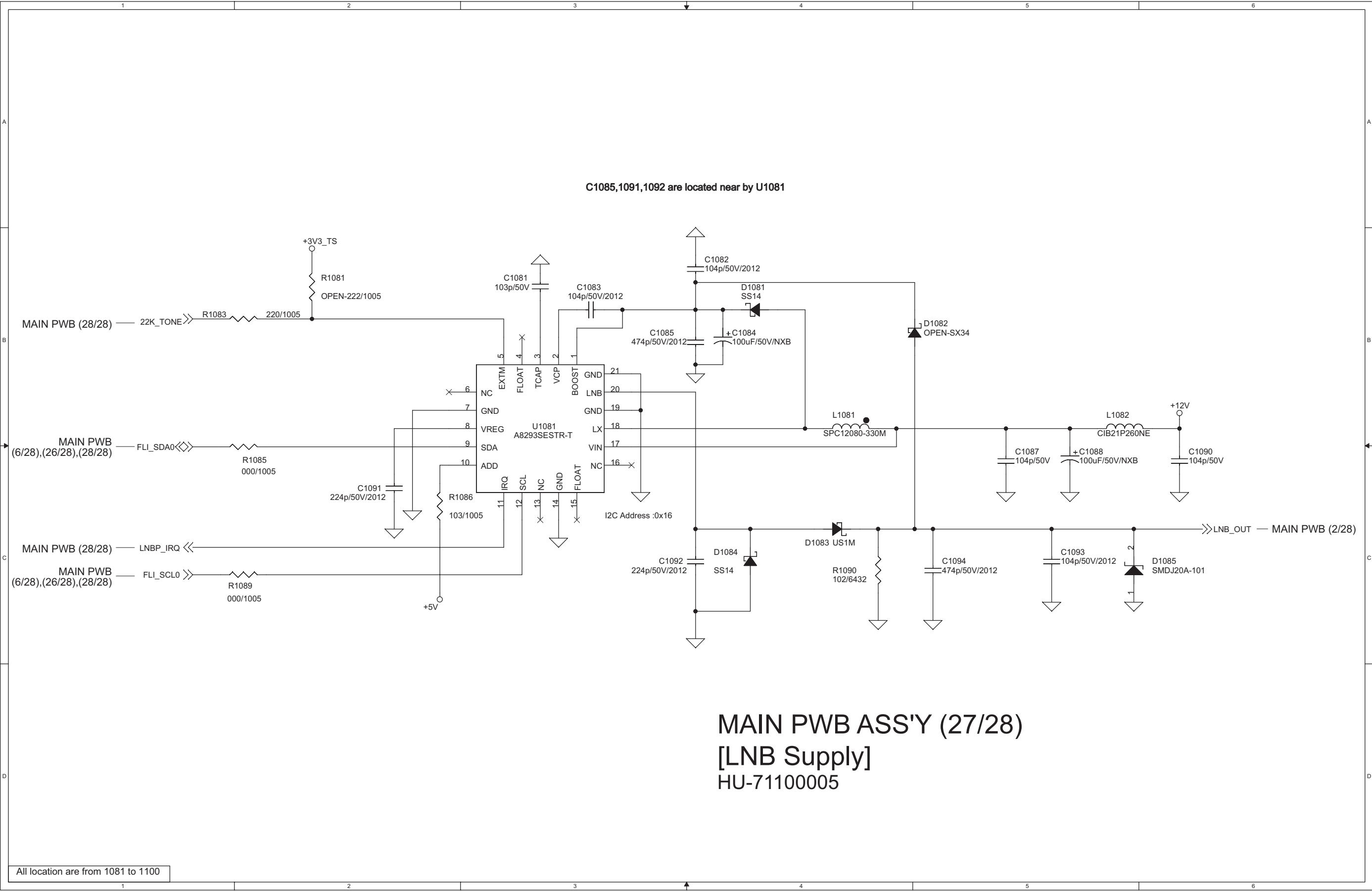
MAIN PWB ASS'Y (23/28)
[RS232]
HU-71100005

MAIN PWB CIRCUIT DIAGRAM (24/28) [TS Switch]



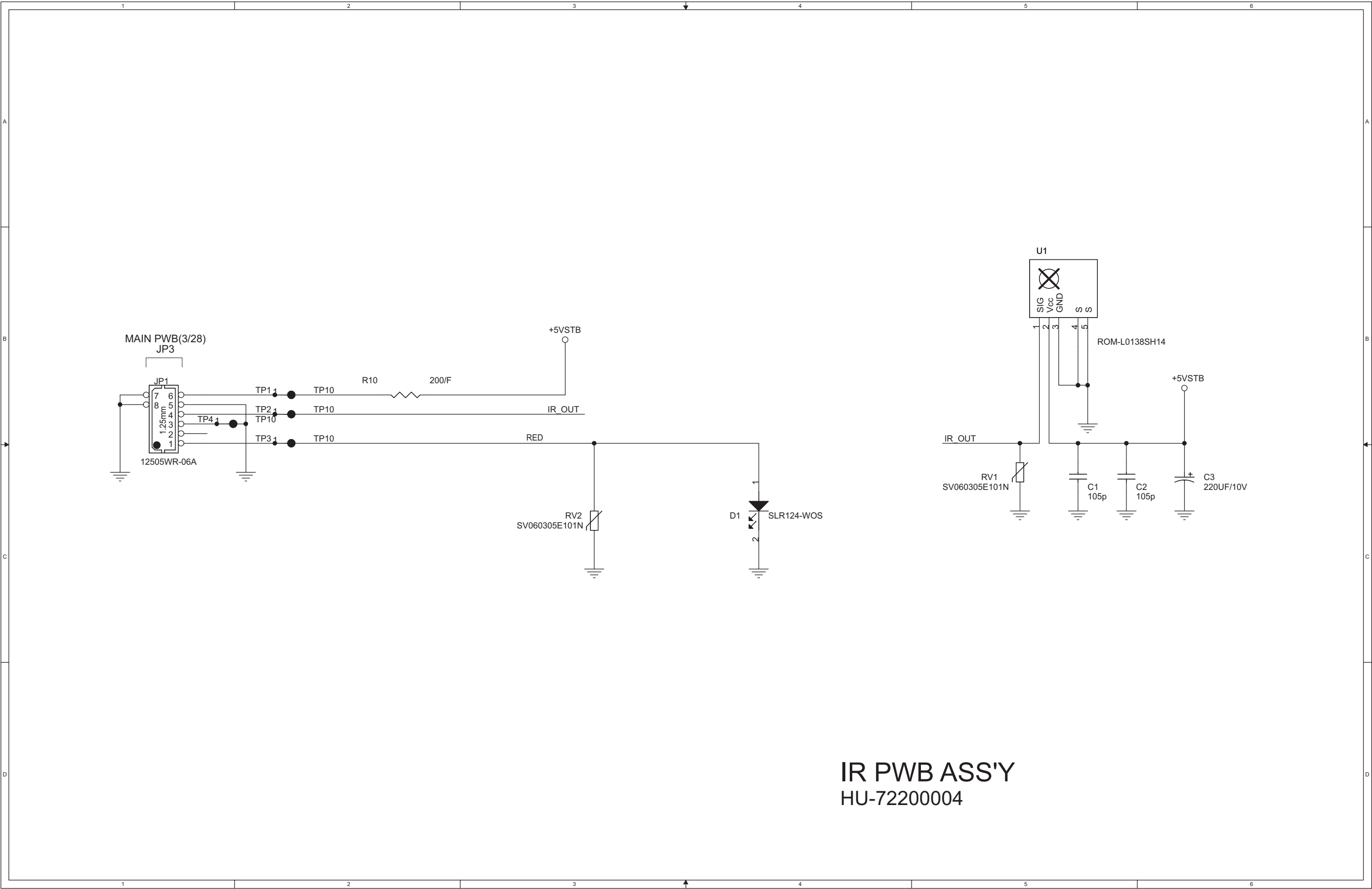




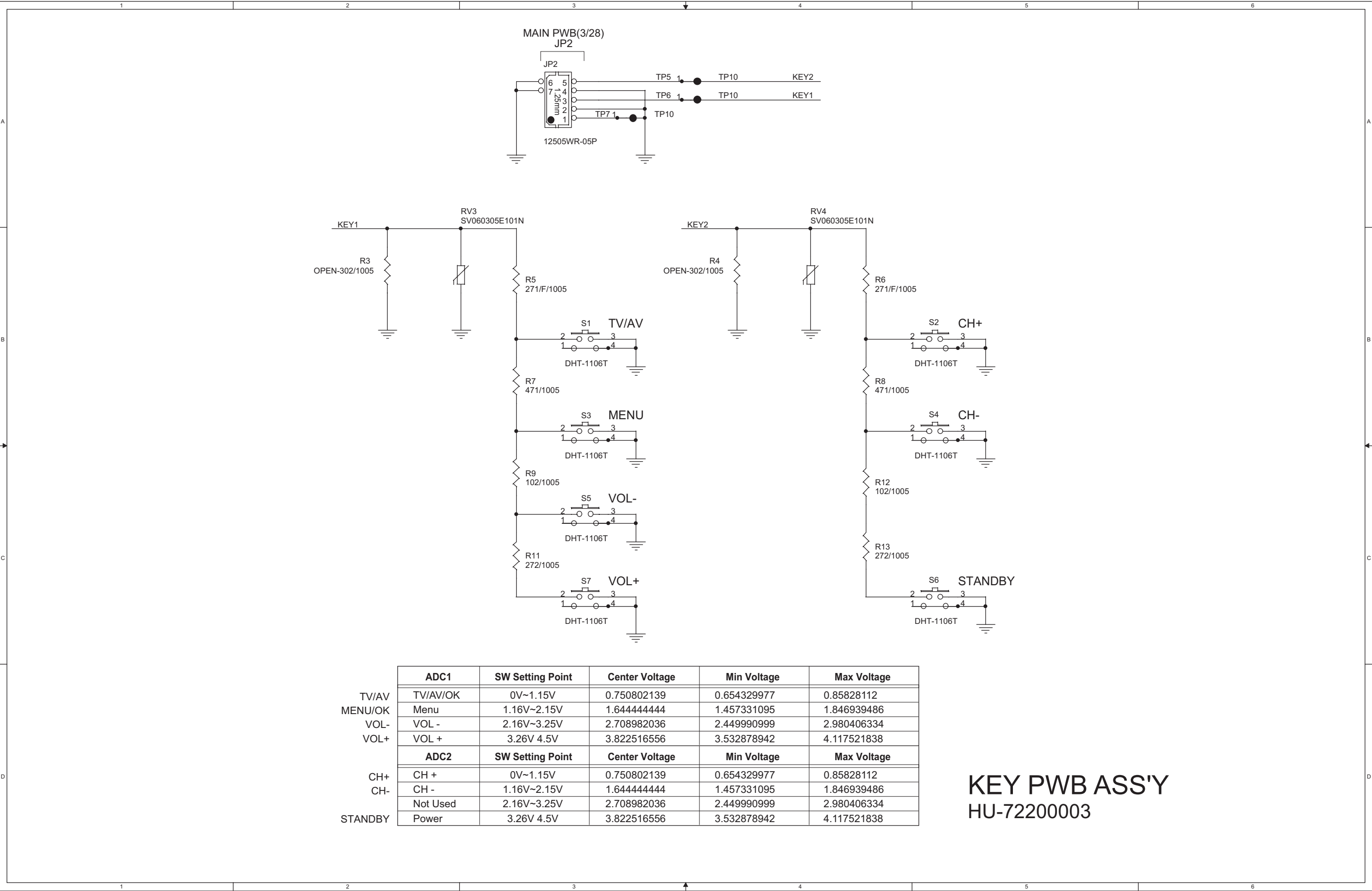


MAIN PWB ASS'Y (28/28)
[QPSK Demodulator]
HU-71100005

All location are from 1051 to 1080



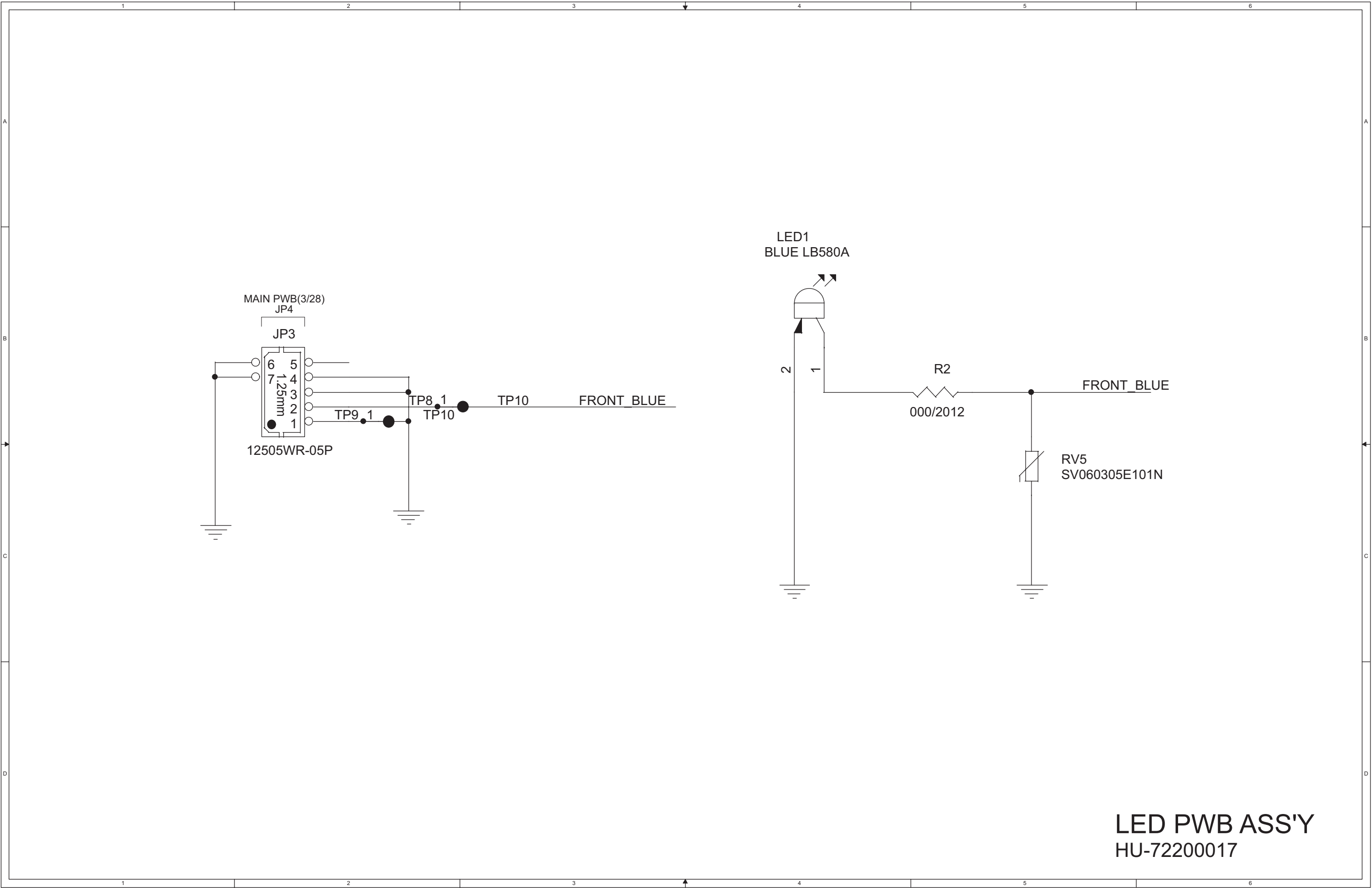
KEY PWB CIRCUIT DIAGRAM



	ADC1	SW Setting Point	Center Voltage	Min Voltage	Max Voltage
TV/AV MENU/OK VOL- VOL+	TV/AV/OK	0V~1.15V	0.750802139	0.654329977	0.85828112
	Menu	1.16V~2.15V	1.644444444	1.457331095	1.846939486
	VOL -	2.16V~3.25V	2.708982036	2.449990999	2.980406334
	VOL +	3.26V 4.5V	3.822516556	3.532878942	4.117521838
	ADC2	SW Setting Point	Center Voltage	Min Voltage	Max Voltage
CH+ CH- Not Used	CH +	0V~1.15V	0.750802139	0.654329977	0.85828112
	CH -	1.16V~2.15V	1.644444444	1.457331095	1.846939486
	Not Used	2.16V~3.25V	2.708982036	2.449990999	2.980406334
STANDBY	Power	3.26V 4.5V	3.822516556	3.532878942	4.117521838

KEY PWB ASS'Y
HU-72200003

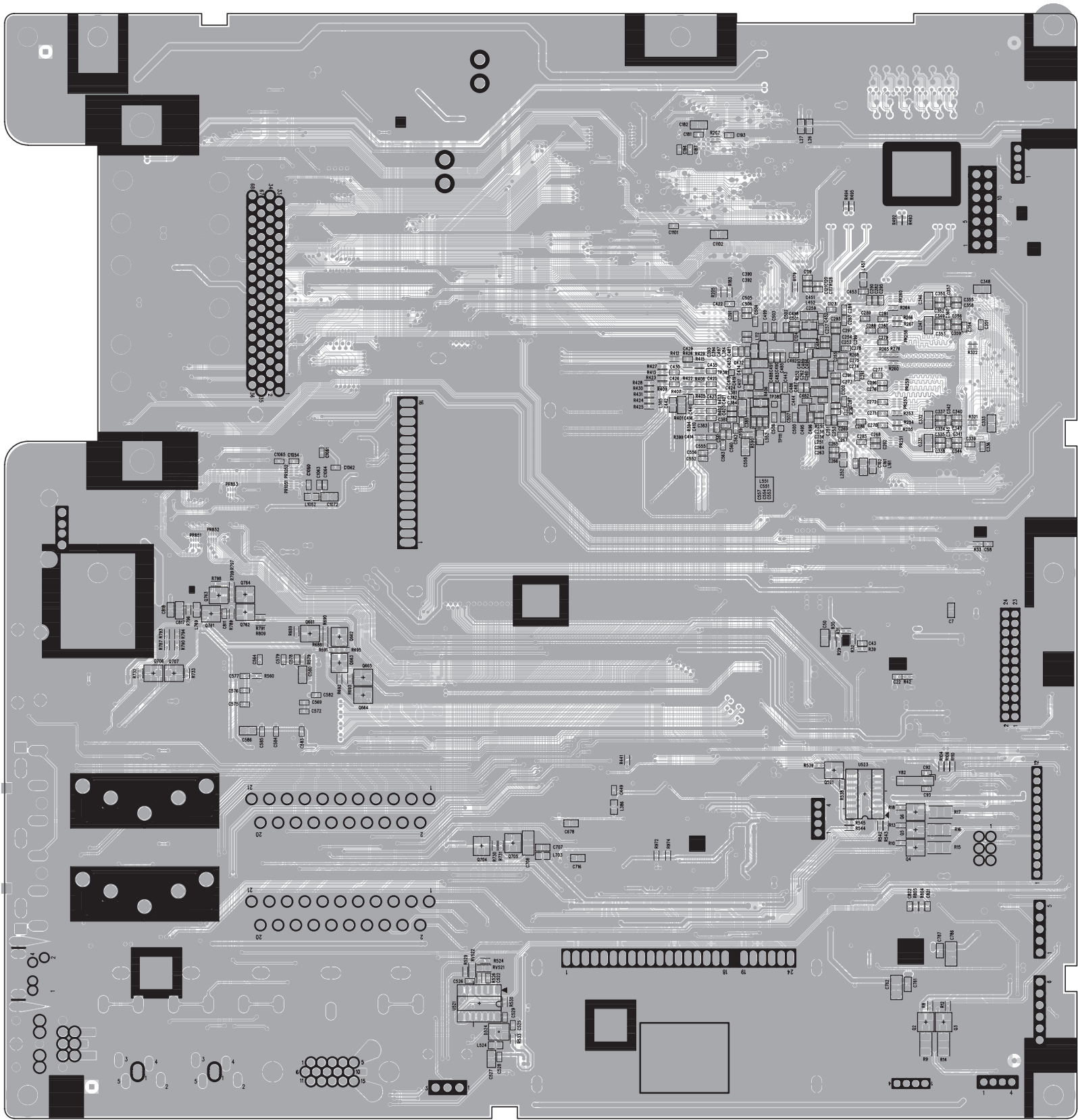
LED PWB CIRCUIT DIAGRAM

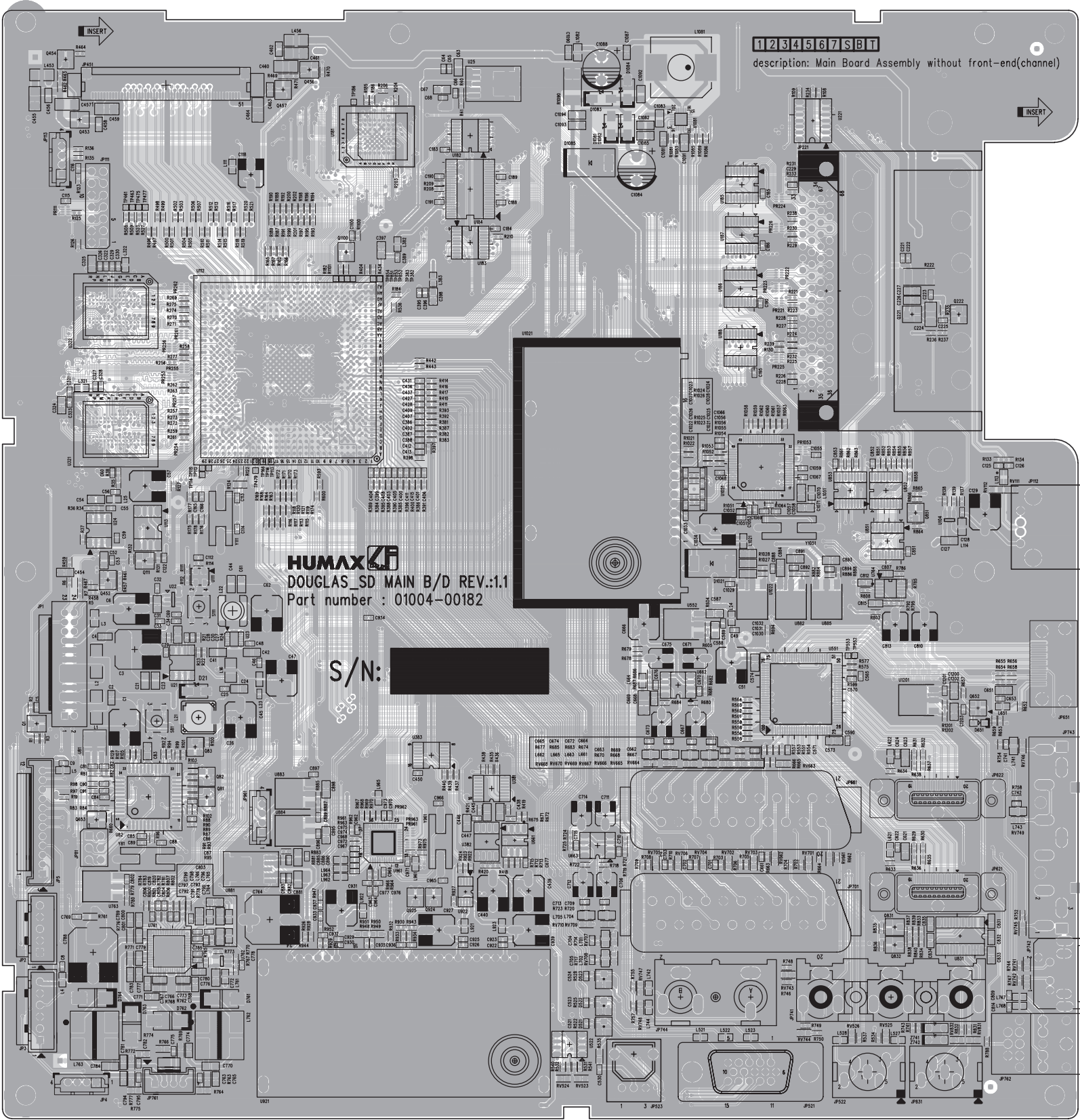


LED PWB ASS'Y
HU-72200017

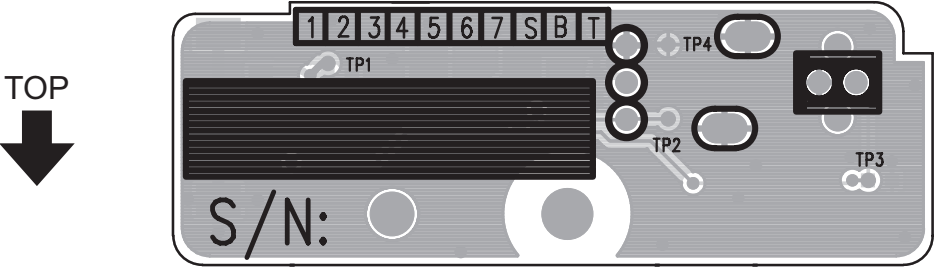
PATTERN DIAGRAMS
MAIN PWB PATTERN [SOLDER SIDE]

TOP
↑

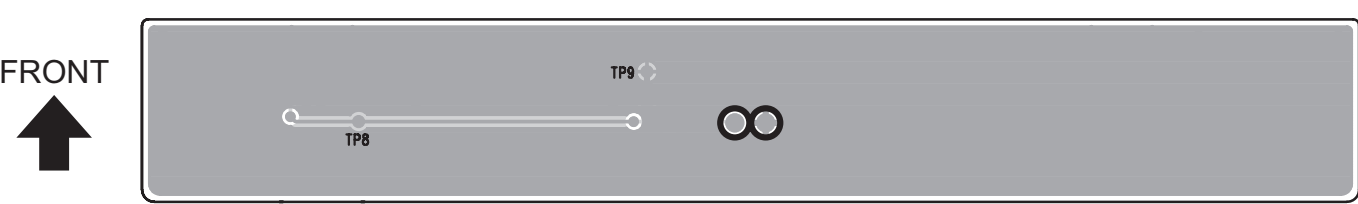




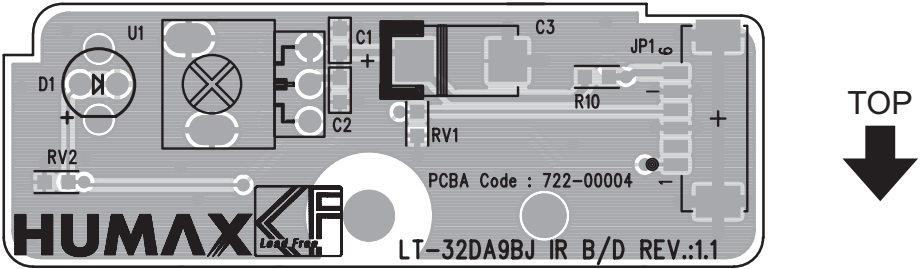
IR PWB PATTERN [SOLDER SIDE]



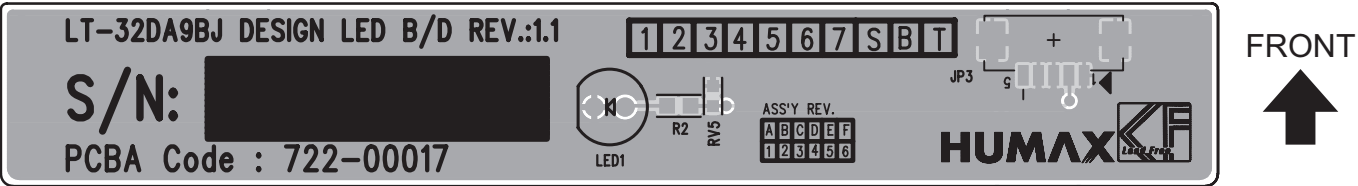
LED PWB PATTERN [SOLDER SIDE]



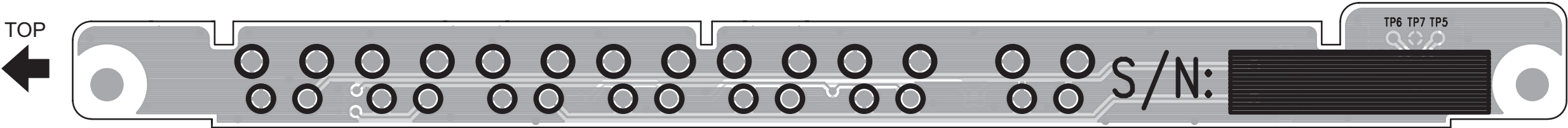
IR PWB PATTERN [PARTS SIDE]



LED PWB PATTERN [PARTS SIDE]



KEY PWB PATTERN [SOLDER SIDE]



KEY PWB PATTERN [PARTS SIDE]

