



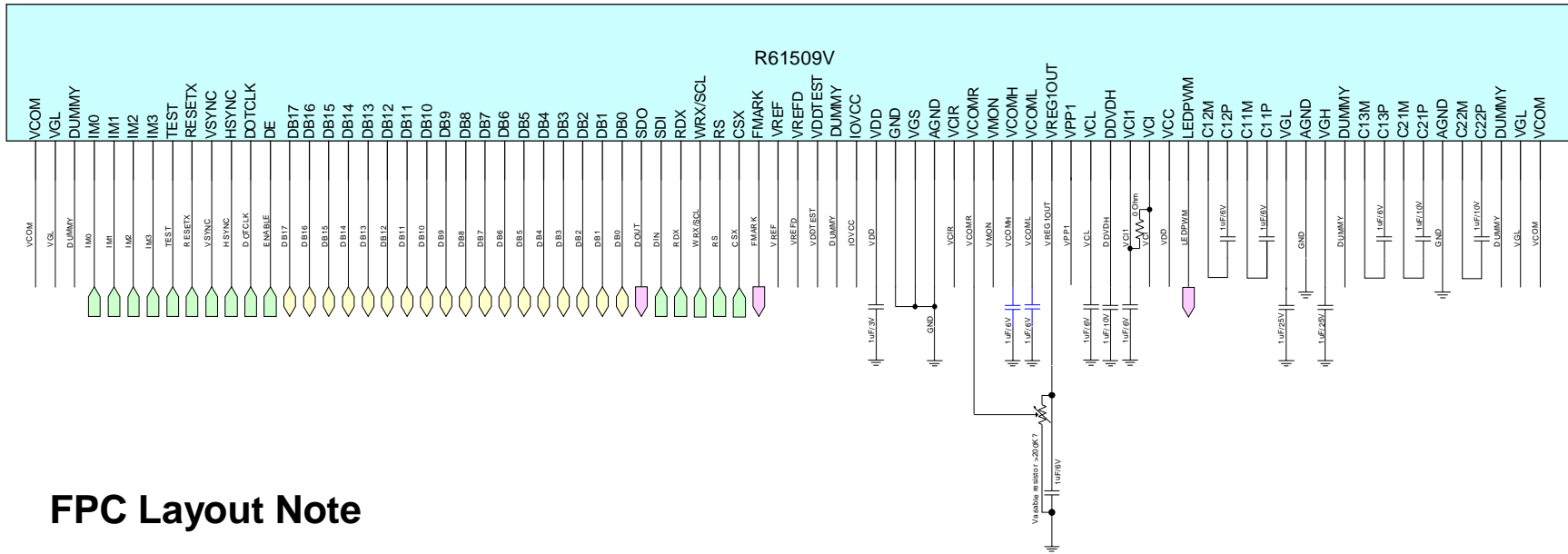
R61509V Application Note

Renesas SP Drivers Taiwan Inc.

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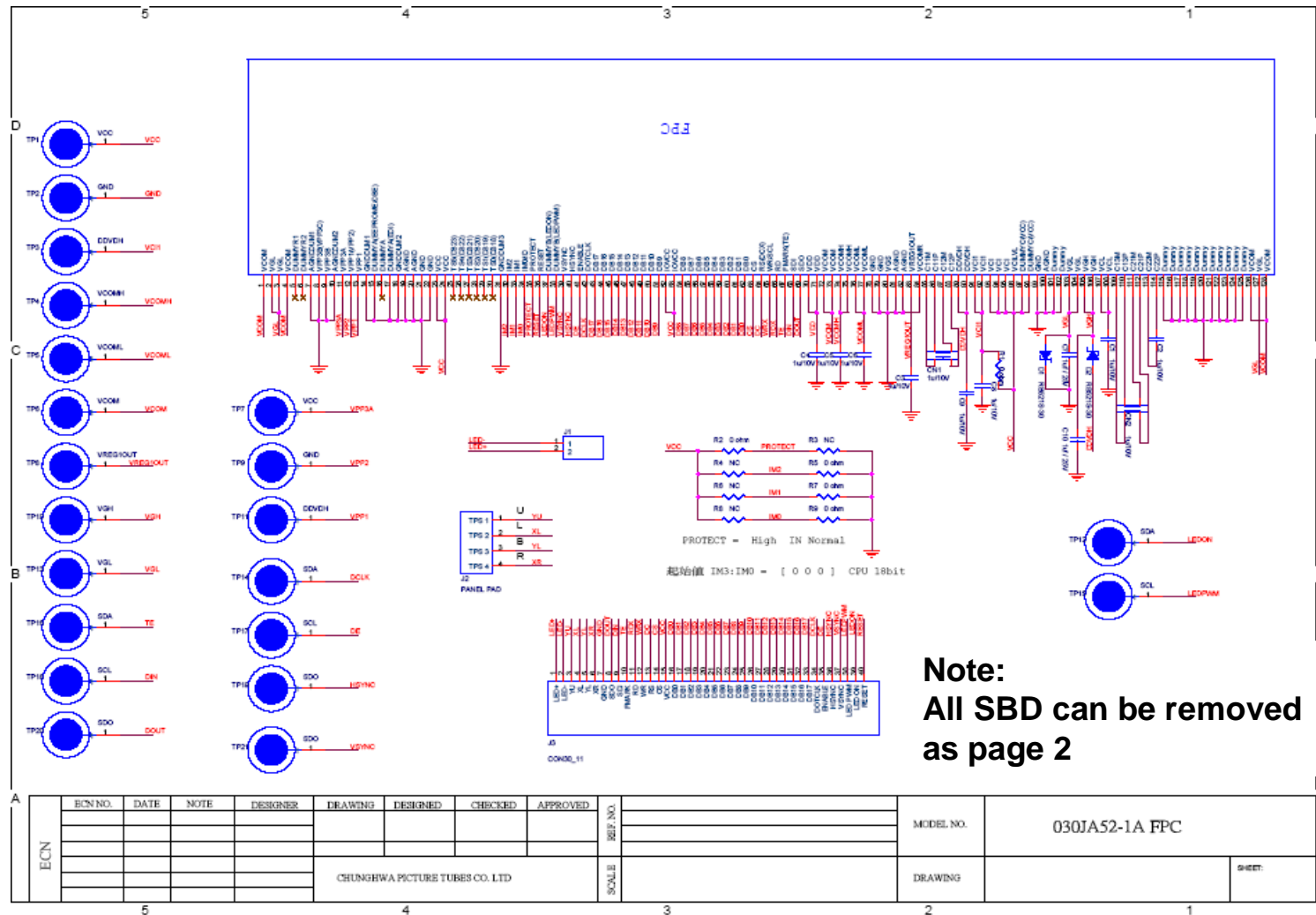
1. FPC Layout Note



FPC Layout Note

- 0 SBD for this IC.
- When IOVCC = VCC ,IOVCC can connect to VCC on FPC.
- To connect VCC, IOVCC and VCI together on the FPC is recommended if each voltages are the same.
- Connect variable resistor to VCOMR for adjusting the VCOMH level between VREG and GND. When you don't adjust it, keep it open.
- When you connect VCI1 and VCI, it is recommended to connect directly. To connect them through 0 ohm resistor may affect performance.

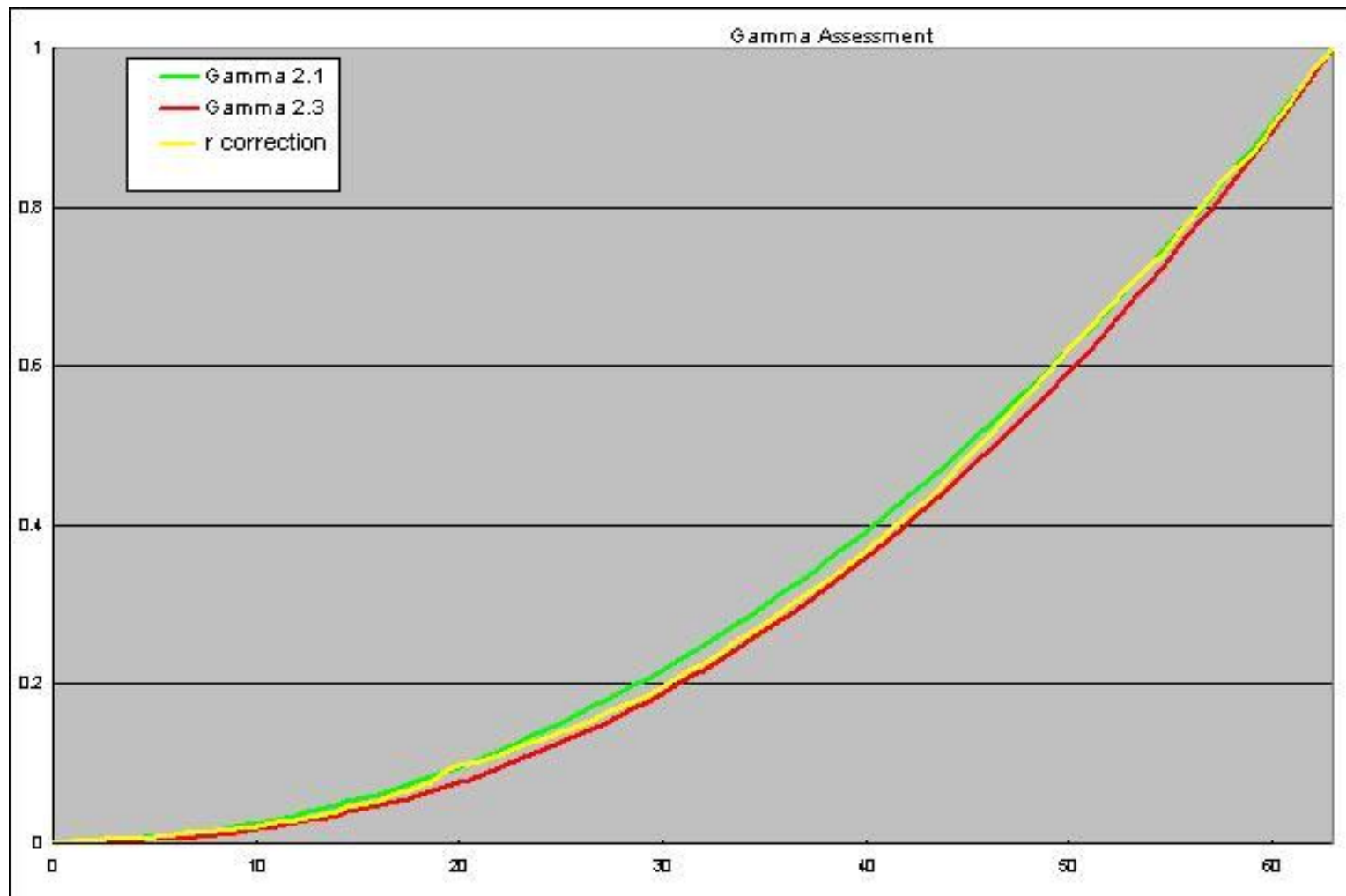
2. CPT 3.0”(C030JB) FPC Schematic



2. CPT 3.0”(C030JB) Initial Code

{setc, R00h, 0x00000}	{setc, R10h, 0x00016} //69.5Hz	{setc, R210h, 0x00000}
{setc, R00h, 0x00000}	{setc, R11h, 0x00101} //	{setc, R211h, 0x000EF}
{setc, R00h, 0x00000}	{setc, R12h, 0x00000} //	{setc, R212h, 0x00000}
{setc, R00h, 0x00000}	{setc, R13h, 0x00001} //	{setc, R213h, 0x0018F} //432=1AF, 400=18F
{time, 0010 ,ms}		{setc, R500h, 0x00000}
{setc, R400h, 0x06200}	{setc, R100h, 0x00330} //BT,AP	{setc, R501h, 0x00000}
{setc, R08h, 0x00808}	{setc, R101h, 0x00237} //DC0,DC1,VC	{setc, R502h, 0x0005F}
	{setc, R103h, 0x00F00} //VDV	{setc, R401h, 0x00001}
{setc, R300h, 0x00C00} //gamma	{setc, R280h, 0x06100} //VCM	{setc, R404h, 0x00000}
{setc, R301h, 0x05A0B}	{setc, R102h, 0x0C1B0} //VRH,VCMR,PSON,PON	{time, 0100 ,ms}
{setc, R302h, 0x00906}	{time, 0100 ,ms}	
{setc, R303h, 0x01017}		{setc, R07h, 0x00100} //BASEE
{setc, R304h, 0x02300}	{setc, R01h, 0x00100}	{time, 0100 ,ms}
{setc, R305h, 0x01700}	{setc, R02h, 0x00100}	{setc, R200h, 0x00000}
{setc, R306h, 0x06309}	{setc, R03h, 0x01030}	{setc, R201h, 0x00000}
{setc, R307h, 0x00C09}	{setc, R09h, 0x00001}	
{setc, R308h, 0x0100C}	{setc, R0Ch, 0x00000}	
{setc, R309h, 0x02232}	{setc, R90h, 0x08000}	
	{setc, R0Fh, 0x00000}	

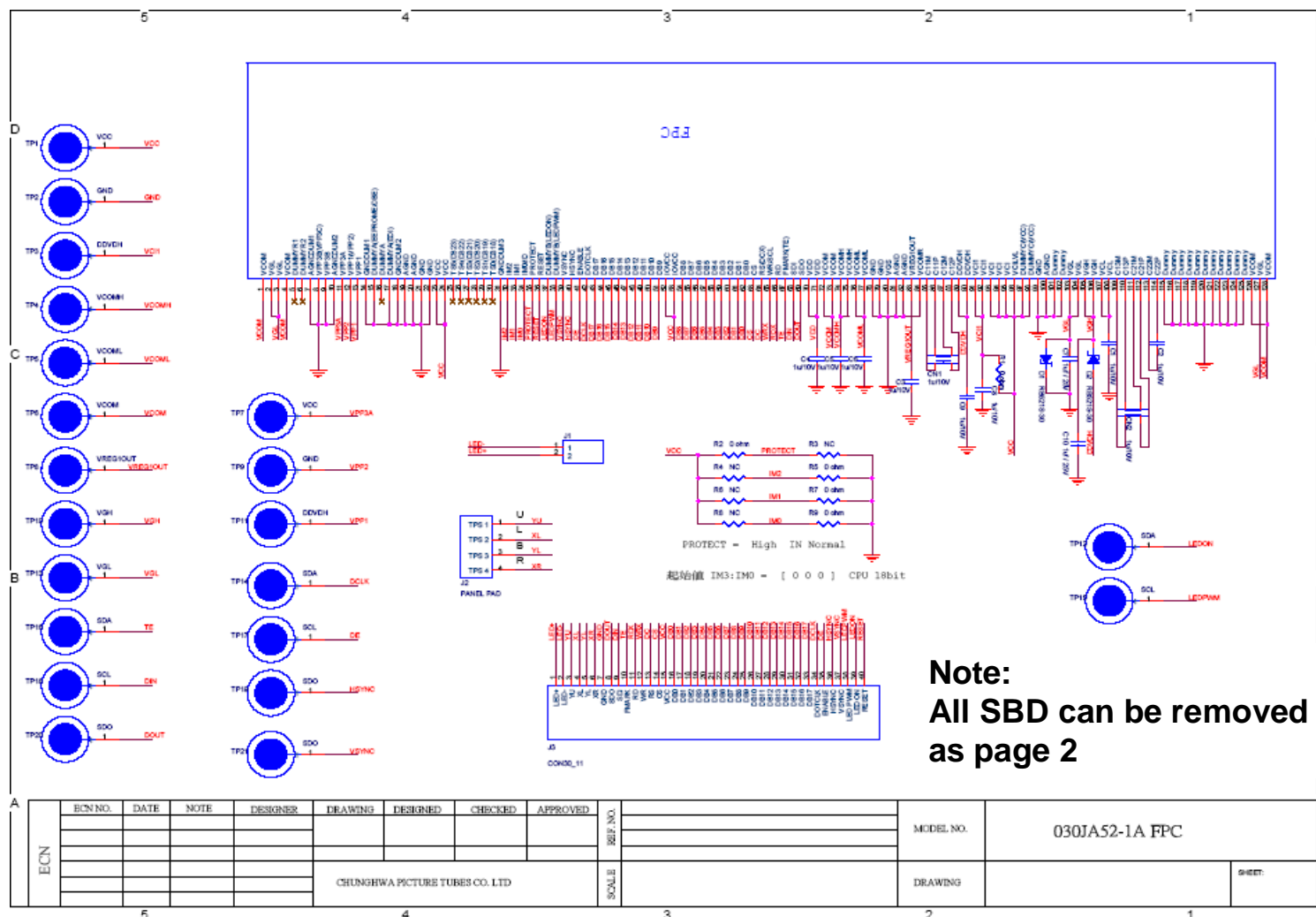
2. CPT 3.0”(C030JB) Gamma curve



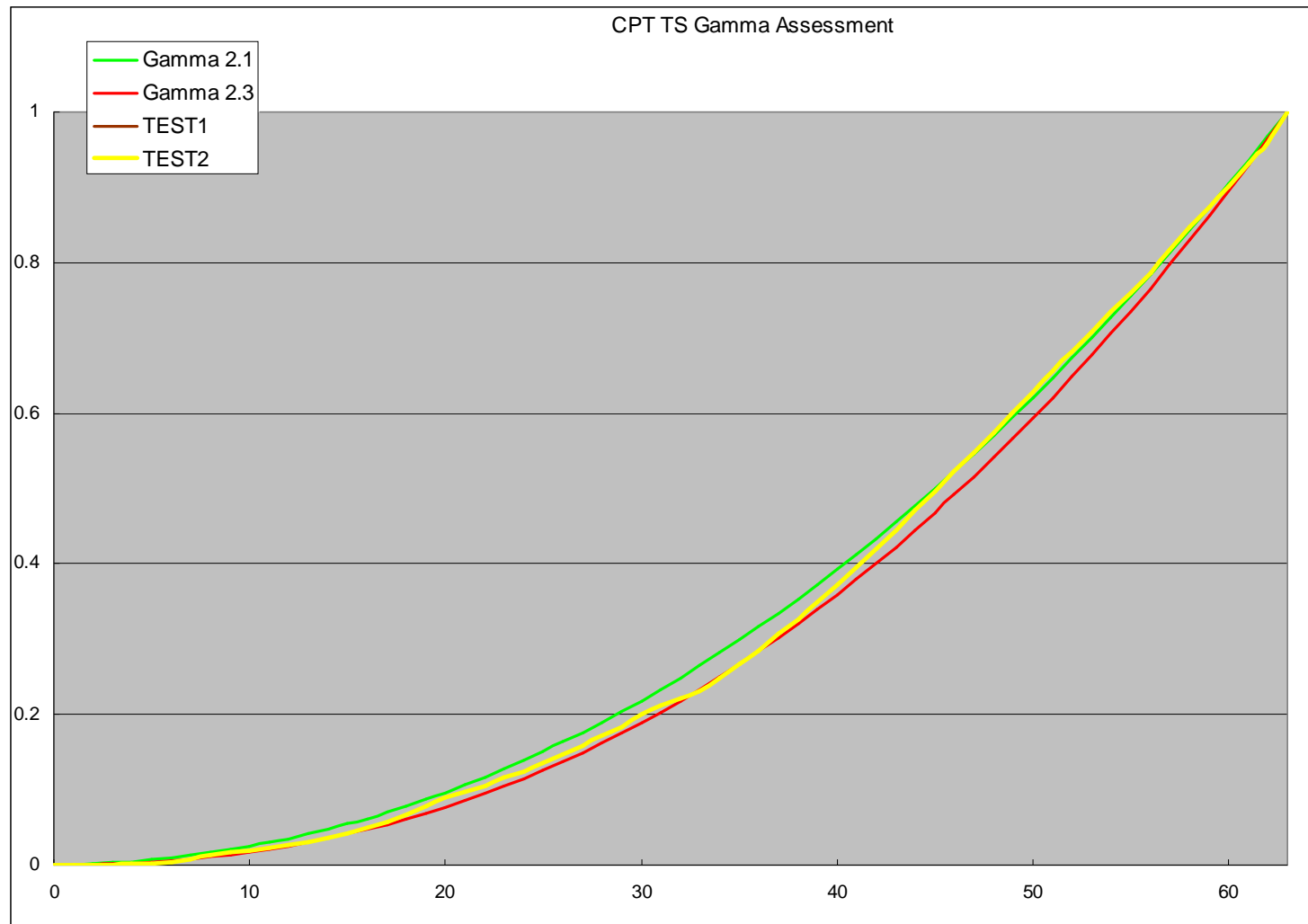
3. CPT 3.2”(032JB, VA) Initial Code

{setc, R00h, 0x00000}	{setc, R10h, 0x00016} //69.5Hz	{setc, R210h, 0x00000}
{setc, R00h, 0x00000}	{setc, R11h, 0x00101} //	{setc, R211h, 0x000EF}
{setc, R00h, 0x00000}	{setc, R12h, 0x00000} //	{setc, R212h, 0x00000}
{setc, R00h, 0x00000}	{setc, R13h, 0x00001} //	{setc, R213h, 0x0018F} //432=1AF, 400=18F
{time, 0010 ,ms}		{setc, R500h, 0x00000}
{setc, R400h, 0x06200}	{setc, R100h, 0x00330} //BT,AP	{setc, R501h, 0x00000}
{setc, R08h, 0x00808}	{setc, R101h, 0x00237} //DC0,DC1,VC	{setc, R502h, 0x0005F}
	{setc, R103h, 0x00E00} //VDV	{setc, R401h, 0x00001}
	{setc, R280h, 0x0DA00} //VCM	{setc, R404h, 0x00000}
{setc, R300h, 0x00006} //gamma	{setc, R102h, 0x0F9B0} //VRH,VCMR,PERSON,PON	{time, 0100 ,ms}
{setc, R301h, 0x00204}	{time, 0100 ,ms}	
{setc, R302h, 0x00600}		
{setc, R303h, 0x00315}		
{setc, R304h, 0x03300}	{setc, R01h, 0x00100}	{setc, R07h, 0x00100} //BASEE
	{setc, R02h, 0x00100}	{time, 0100 ,ms}
{setc, R305h, 0x01503}	{setc, R03h, 0x01030}	{setc, R200h, 0x00000}
{setc, R306h, 0x00106}	{setc, R09h, 0x00001}	{setc, R201h, 0x00000}
{setc, R307h, 0x00402}		
{setc, R308h, 0x00600}	{setc, R0Ch, 0x00000}	
	{setc, R90h, 0x08000}	
{setc, R309h, 0x00033}	{setc, R0Fh, 0x00000}	

3. CPT 3.2”(032JB, VA) FPC Schematic



3. CPT 3.2”(032JB, VA) Gamma curve



4. NVM Write Sequence of R61509V

```
{setc, R00h, 0x00000};//transfer sync.  
{setc, R00h, 0x00000}  
{setc, R00h, 0x00000}  
{setc, R00h, 0x00000}  
{setc, R6F1h, 0x061FF};//put data  
{setc, R6F0h, 0x00010};//write setting  
{setc, R6F0h, 0x00090};//write start  
{time, 0150 ,ms}  
{setc, R6F0h, 0x00000};//write end
```



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