

POWERTIP TECH. CORP.

DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

Application Note

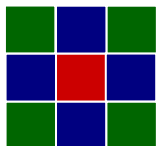
Module name: PPT9999-A003-06-Q

Issue date: 2007/06/07

Version: 0.0

Note:

1. The information contained herein may be change without prior notice. It is therefore advisable to contact
POWERTIP TECH. CORP. before designed your product based on this specification.

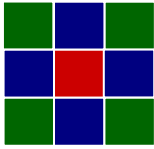


POWERTIP TECH. CORP.

DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

Reversion History

| Version | Date | Page | Description |
|---------|------------|------|-----------------------------------|
| Ver.0 | 2007,06,07 | All | Application note was first issued |

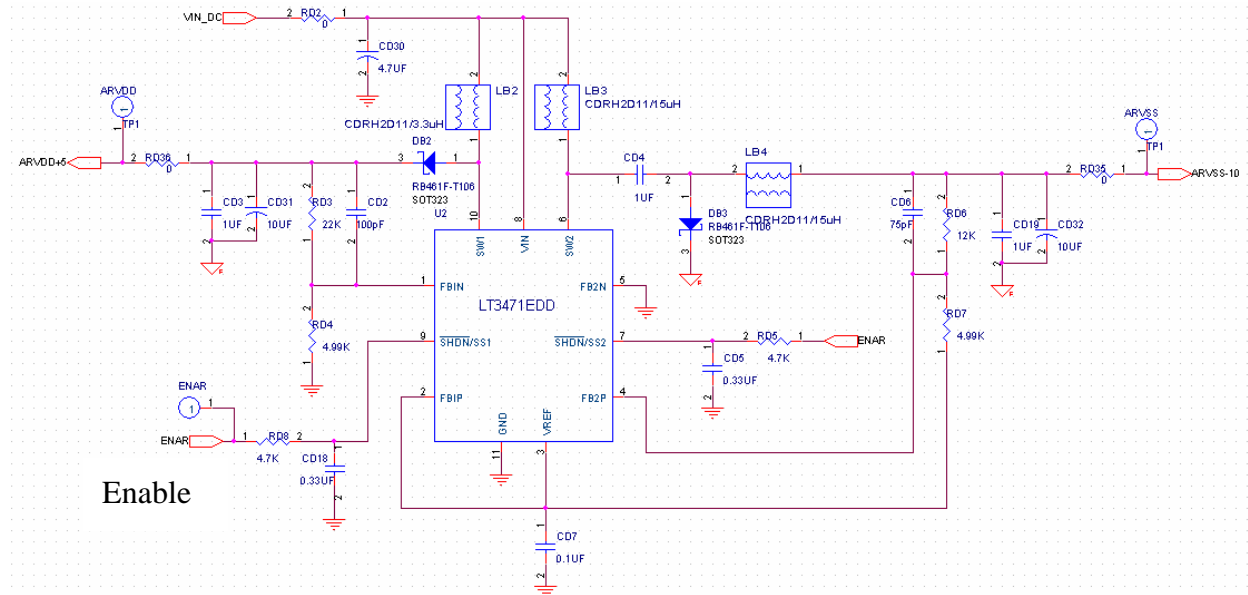


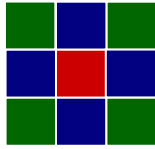
POWERTIP TECH. CORP.

DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

1. Application Circuit

1.1 Below application DC/DC circuit is an example for the input 5v to generate ARVDD, ARVSS

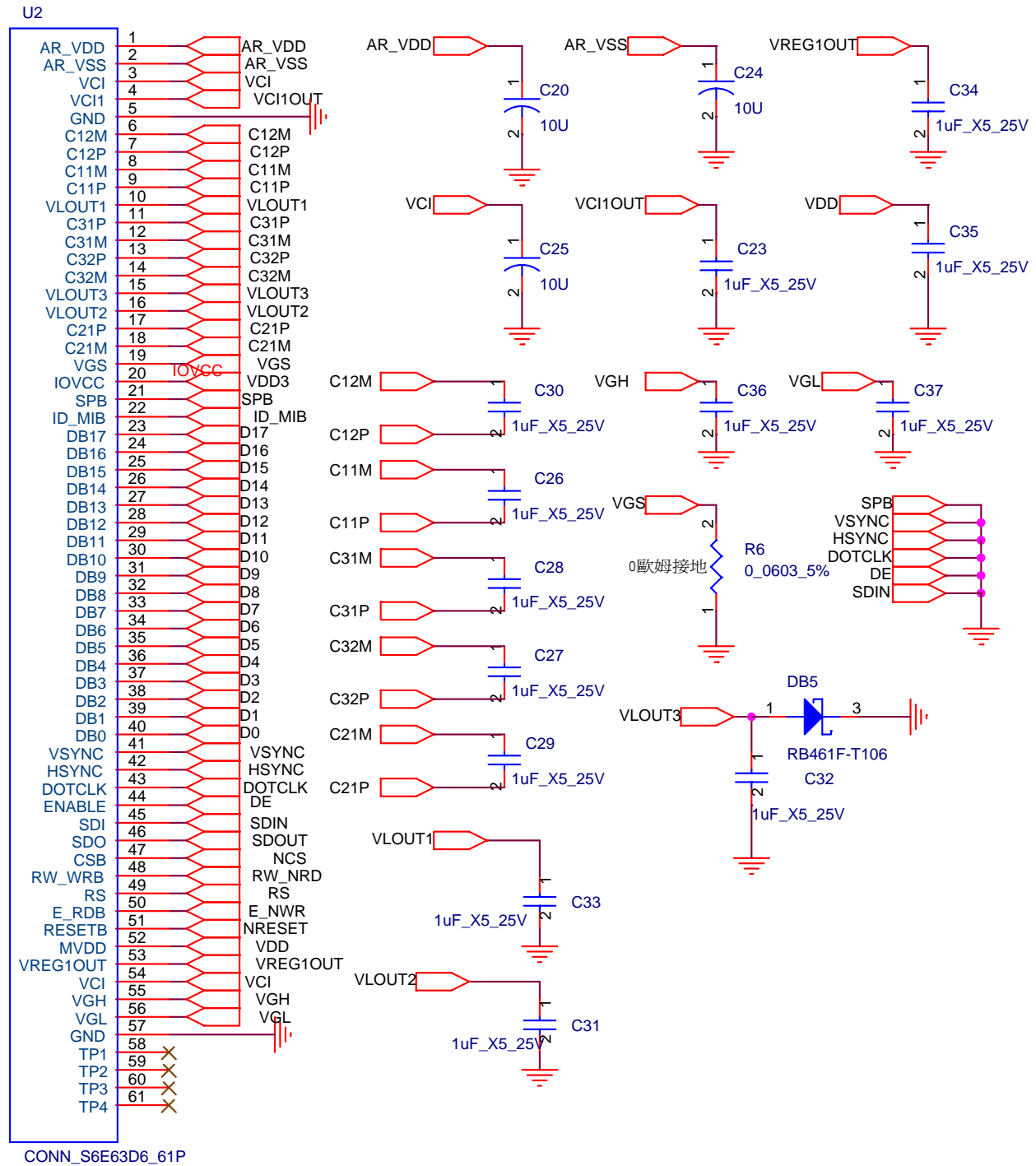


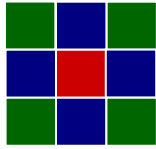


POWERTIP TECH. CORP.

DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

1.2 Drive IC CPU interface definition





POWERTIP TECH. CORP.

DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

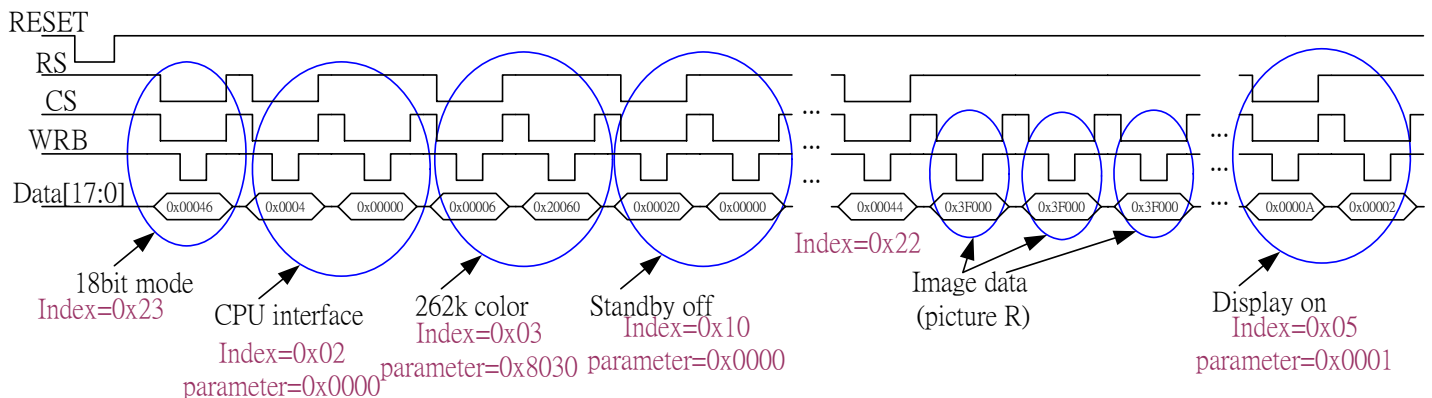
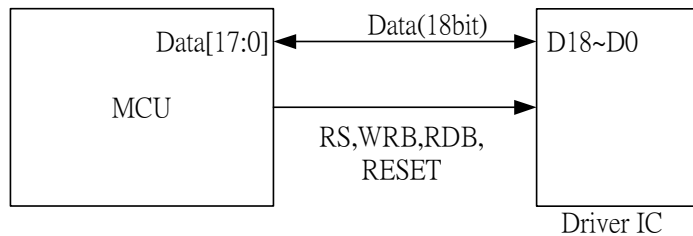
1.3. Drive IC interface spec – BUS spec.

| Bus width | Pin selection | note |
|------------------|----------------|------|
| 18-bit interface | DB17-0 | |
| 16-bit interface | DB17-10, DB8-1 | |
| 9-bit interface | DB8-0 | |
| 8-bit interface | DB8-1 | |

ID_MIB= high 6800 mode

ID_MIB=low 8080 mode

CPU 8080mode 18bit data but 262K color

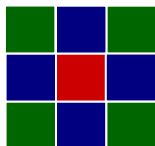


Initial code:

```

Index_out(0x23);
Index_out(0x02);
Parameter_out(0x0000);
Index_out(0x03);
Parameter_out(0x8030);
Index_out(0x10);
Parameter_out(0x0000);
Index_out(0x05);    // display on
Parameter_out(0x0001);

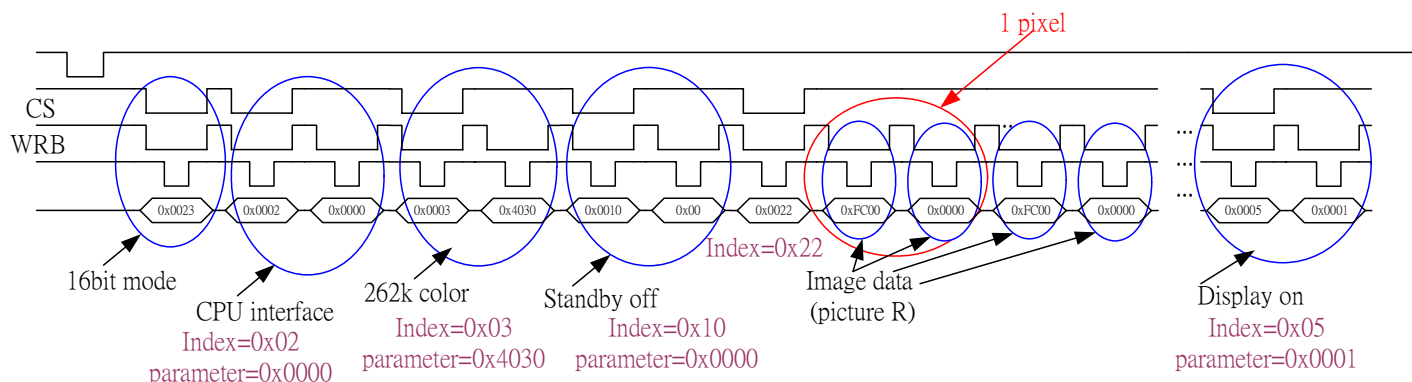
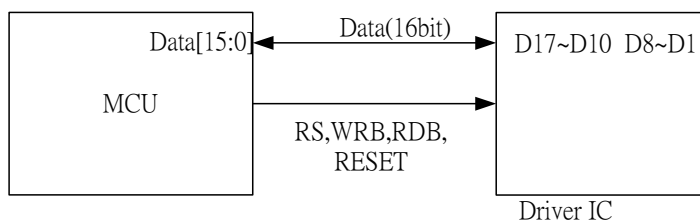
```



POWERTIP TECH. CORP.

DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

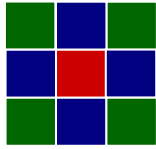
CPU 8080mode 16bit data but 262K color



Initial code:

```

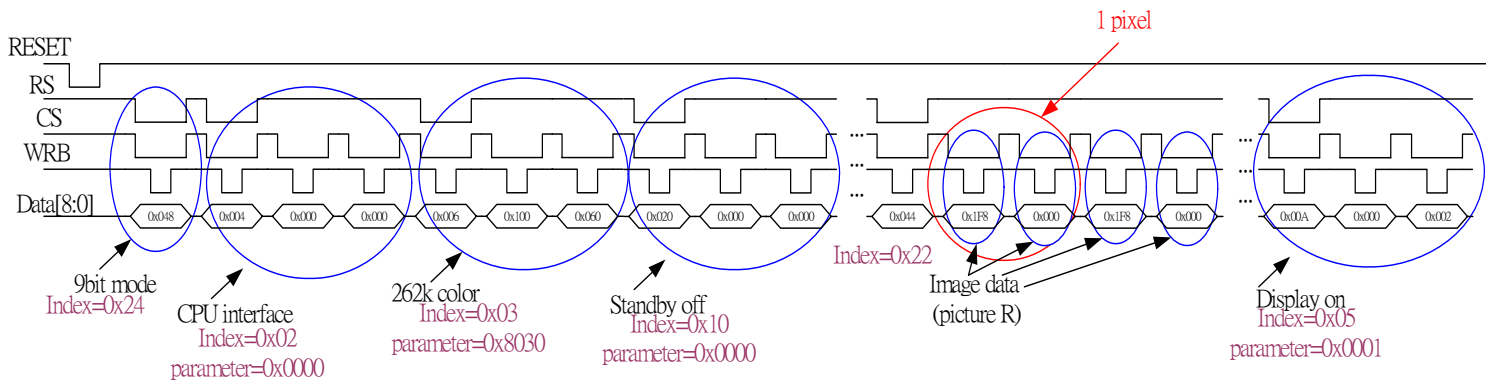
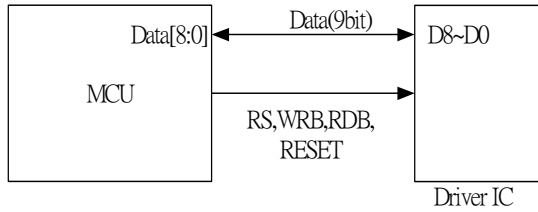
Index_out(0x23);
Index_out(0x02);
Parameter_out(0x0000);
Index_out(0x03);
Parameter_out(0x4030);
Index_out(0x10);
Parameter_out(0x0000);
Index_out(0x05);    // display on
Parameter_out(0x0001);
  
```



POWERTIP TECH. CORP.

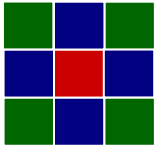
DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

CPU 8080mode 9bit data but 262K color



Initial code:

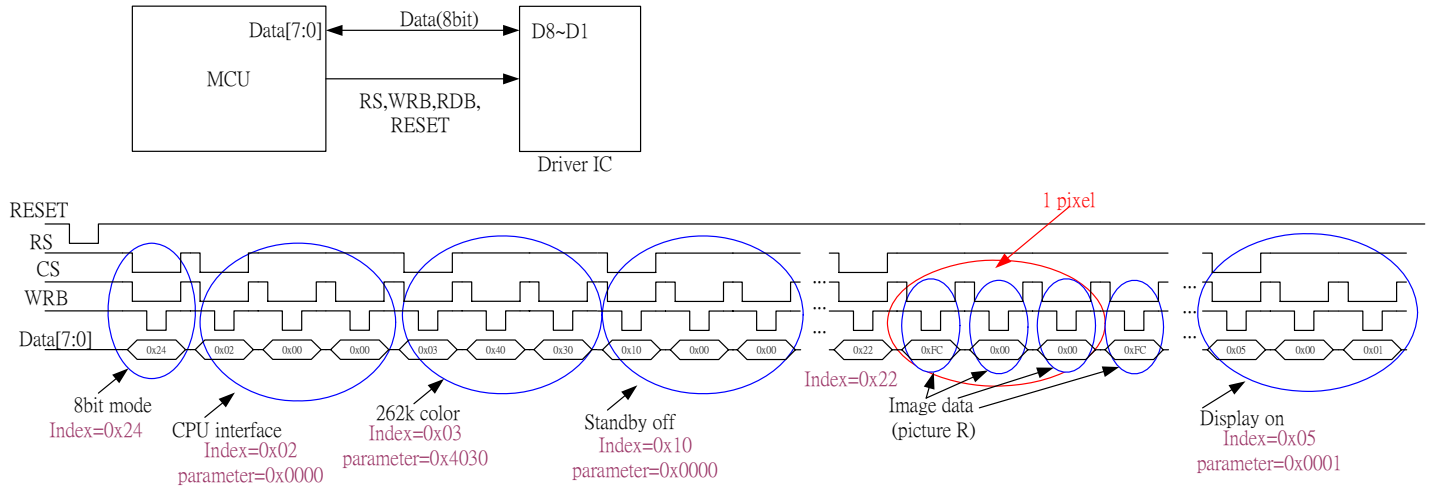
```
Index_out(0x24);
Index_out(0x02);
Parameter_out(0x0000);
Index_out(0x03);
Parameter_out(0x8030);
Index_out(0x10);
Parameter_out(0x0000);
Index_out(0x05);    // display on
Parameter_out(0x0001);
```



POWERTIP TECH. CORP.

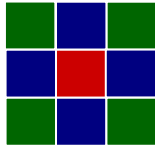
DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

CPU 8080mode 8bit data but 262K color



Initial code:

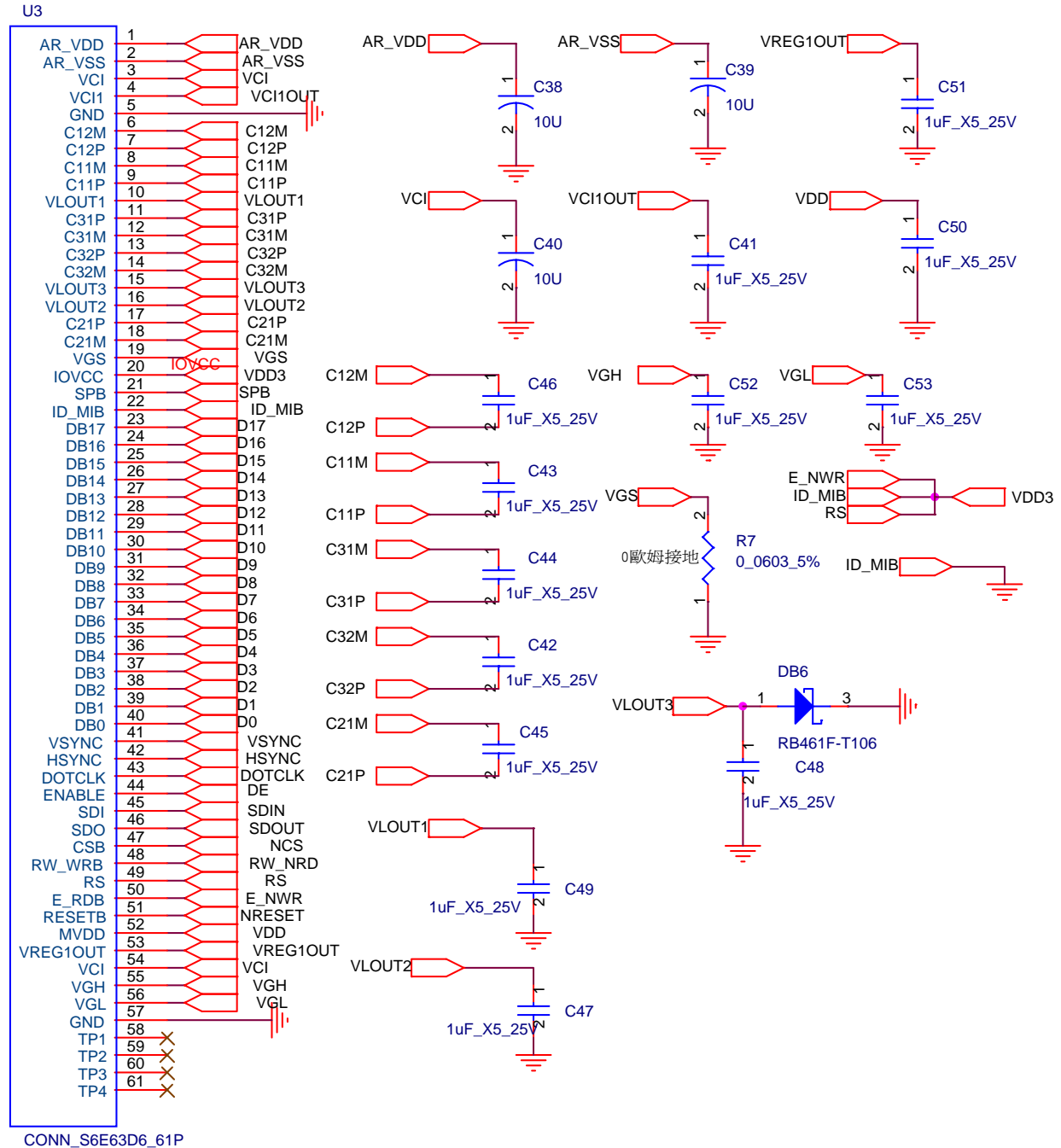
```
Index_out(0x24);
Index_out(0x02);
Parameter_out(0x0000);
Index_out(0x03);
Parameter_out(0x4030);
Index_out(0x10);
Parameter_out(0x0000);
Index_out(0x05);    // display on
Parameter_out(0x0001);
```

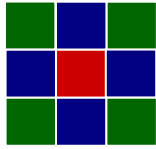



POWERTIP TECH. CORP.

DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

1.4 Drive IC RGB interface definition





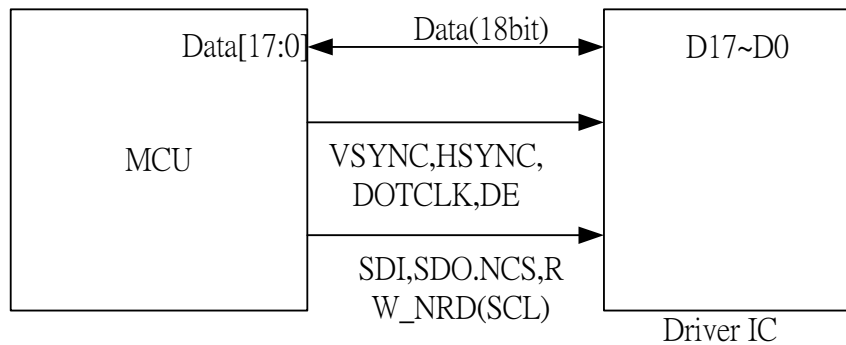
POWERTIP TECH. CORP.

DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

| Bus width | Pin selection | note |
|------------------|----------------|------|
| 18-bit interface | DB17-0 | |
| 16-bit interface | DB17-10, DB8-1 | |
| 6-bit interface | DB8-3 | |

Fix unused pin to vss level

RGB inf18 bit data but 262K color

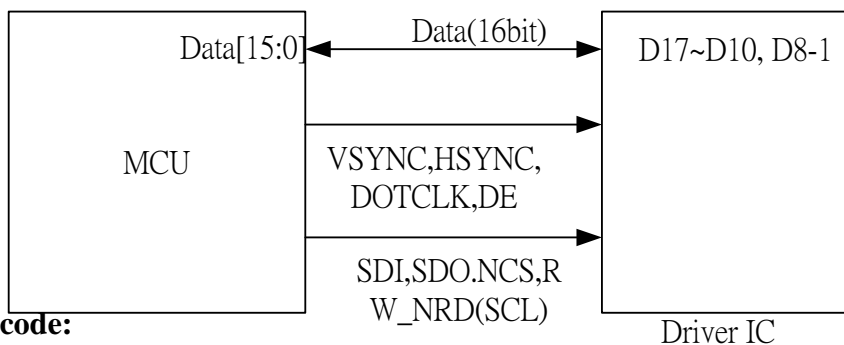


Initial code:

```

Index_out(0x02);
Parameter_out(0x0182);
Index_out(0x10);
Parameter_out(0x0000);
Index_out(0x05);    // display on
Parameter_out(0x0001);
  
```

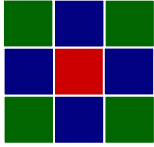
RGB inf16 bit data but 65K color



Initial code:

```

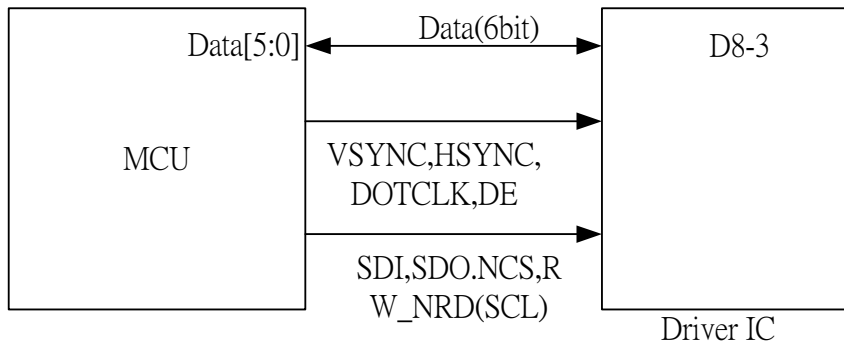
Index_out(0x02);
Parameter_out(0x0192);
Index_out(0x10);
Parameter_out(0x0000);
Index_out(0x05);    // display on
Parameter_out(0x0001);
  
```



POWERTIP TECH. CORP.

DISPLAY DEVICES FOR BETTER ELECTRONIC DESIGN

RGB inf 6 bit data but 262K color



Initial code:

```
Index_out(0x02);
Parameter_out(0x01A2);
Index_out(0x10);
Parameter_out(0x0000);
Index_out(0x05);    // display on
Parameter_out(0x0001);
```