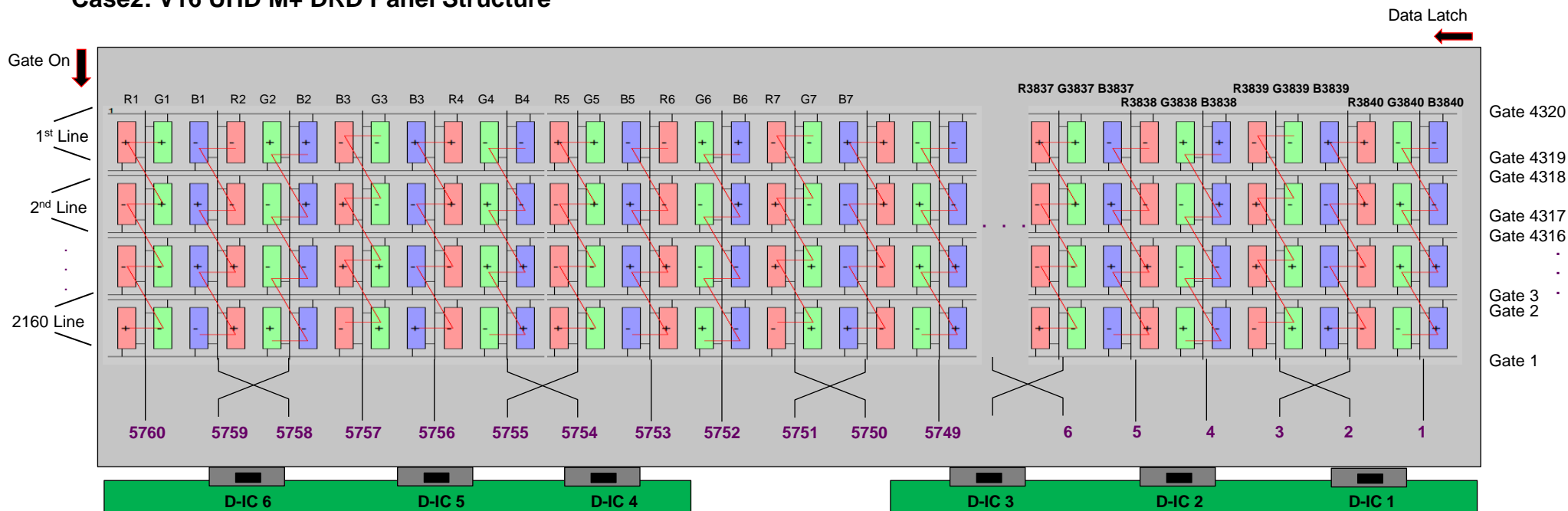


1. V16 UHD 60Hz DRD's Data mapping

Case1: RGB 1G1D Same to V15 (LTD)

Case2: V16 UHD M+ DRD Panel Structure



| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 st Line | Gate4320 (Even Line) | B3840 | G3839 | R3840 | B3838 | R3838 | B3836 | . . . | G13 | R12 | G11 | R10 | B10 | G9 | B8 | G7 | R8 | B6 | R6 | B4 | G5 | R4 | G3 | R2 | B2 | G1 |
| | Gate4319 (Odd Line) | G3840 | R3839 | B3839 | G3838 | B3837 | G3836 | . . . | R13 | B11 | R11 | B9 | G10 | R9 | G8 | R7 | B7 | G6 | B5 | G4 | R5 | B3 | R3 | B1 | G2 | R1 |
| 2 nd Line | Gate4318 (Even Line) | B3840 | G3839 | R3840 | B3838 | R3838 | B3836 | G3837 | R3836 | G3835 | R3834 | B3834 | G3833 | . . . | B6 | R6 | B4 | G5 | R4 | G3 | R2 | B2 | G1 | | | |
| | Gate4317 (Odd Line) | G3840 | R3839 | B3839 | G3838 | B3837 | G3836 | R3837 | B3835 | R3835 | B3833 | G3834 | R3833 | . . . | G6 | B5 | G4 | R5 | B3 | R3 | B1 | G2 | R1 | | | |
| 2160 Line | Gate2 (Even Line) | B3840 | G3839 | R3840 | B3838 | R3838 | B3836 | G3837 | R3836 | G3835 | R3834 | B3834 | G3833 | . . . | B6 | R6 | B4 | G5 | R4 | G3 | R2 | B2 | G1 | | | |
| | Gate1 (Odd Line) | G3840 | R3839 | B3839 | G3838 | B3837 | G3836 | R3837 | B3835 | R3835 | B3833 | G3834 | R3833 | . . . | G6 | B5 | G4 | R5 | B3 | R3 | B1 | G2 | R1 | | | |

1.2 V16 UHD 60Hz M+ DRD Data output sequence (Reverse)

■ V16 UHD M+ DRD REVERSE (T-CON DATA OUTPUT MAPPING)

| Gate EVEN LINE (Start from 4320 GATE LINE) for 1 st , 2 nd , 3 rd , 4 th , 5 thLine | | | | | | | | | |
|---|-------|-------|-------|-----|-------|-------|-------|-------|-------|
| 1st | 2nd | 3rd | 4th | ... | 956th | 957th | 958th | 959th | 960th |
| S DIC#1 | | | | | | | | | |
| B3840 | G3839 | R3840 | B3838 | ... | R3204 | G3203 | R3202 | B3202 | G3201 |
| S DIC#2 | | | | | | | | | |
| B3200 | G3199 | R3200 | B3198 | ... | R2564 | G2563 | R2562 | B2562 | G2561 |
| S DIC#3 | | | | | | | | | |
| B2560 | G2559 | R2560 | B2558 | ... | R1924 | G1923 | R1922 | B1922 | G1921 |
| S DIC#4 | | | | | | | | | |
| B1920 | G1919 | R1920 | B1918 | ... | R1284 | G1283 | R1282 | B1282 | G1281 |
| S DIC#5 | | | | | | | | | |
| B1280 | G1279 | R1280 | B1278 | ... | R644 | G643 | R642 | B642 | G641 |
| S DIC#6 | | | | | | | | | |
| B640 | G639 | R640 | B638 | ... | R4 | G3 | R2 | B2 | G1 |

| Gate ODD LINE (Start from 4319 GATE LINE) for 1 st , 2 nd , 3 rd , 4 th , 5 thLine | | | | | | | | | |
|--|-------|-------|-------|-----|-------|-------|-------|-------|-------|
| 1st | 2nd | 3rd | 4th | ... | 956th | 957th | 958th | 959th | 960th |
| S DIC#1 | | | | | | | | | |
| G3840 | R3839 | B3839 | G3838 | ... | B3203 | R3203 | B3201 | G3202 | R3201 |
| S DIC#2 | | | | | | | | | |
| G3200 | R3199 | B3199 | G3198 | | B2563 | R2563 | B2561 | G2562 | R2561 |
| S DIC#3 | | | | | | | | | |
| G2560 | R2559 | B2559 | G2558 | | B1923 | R1923 | B1921 | G1922 | R1921 |
| S DIC#4 | | | | | | | | | |
| G1920 | R1919 | B1919 | G1918 | | B1283 | R1283 | B1281 | G1282 | R1281 |
| S DIC#5 | | | | | | | | | |
| G1280 | R1279 | B1279 | G1278 | | B643 | R643 | B641 | G642 | R641 |
| S DIC#6 | | | | | | | | | |
| G640 | R639 | B639 | G638 | | B3 | R3 | B1 | G2 | R1 |

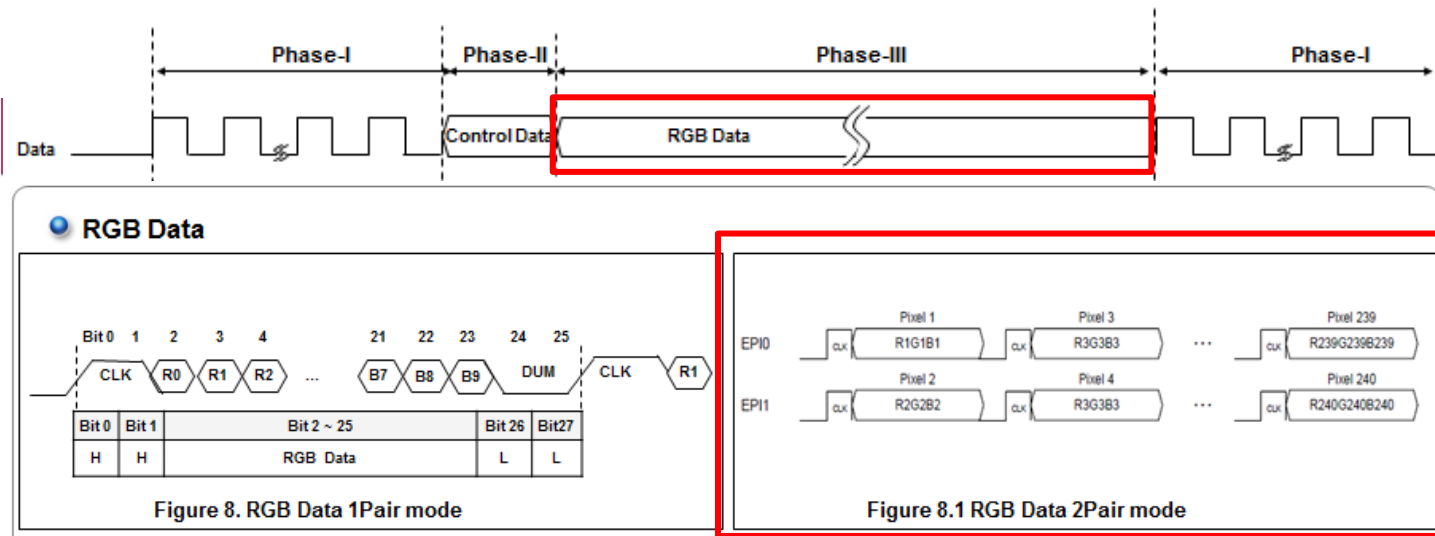
* In case of 961Ch D-IC

| EVEN LINE (Start from 4320 GATE LINE) for 1 st , 2 nd , 3 rd , 4 th , 5 thLine | | | | | | | | | | |
|--|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| 1st | 2nd | 3rd | 4th | ... | 956th | 957th | 958th | 959th | 960th | 961st |
| S DIC#1 | | | | | | | | | | |
| B3840 | G3839 | R3840 | B3838 | ... | R3204 | G3203 | R3202 | B3202 | G3201 | Dummy |
| S DIC#2 | | | | | | | | | | |
| B3200 | G3199 | R3200 | B3198 | ... | R2564 | G2563 | R2562 | B2562 | G2561 | Dummy |
| S DIC#3 | | | | | | | | | | |
| B2560 | G2559 | R2560 | B2558 | ... | R1924 | G1923 | R1922 | B1922 | G1921 | Dummy |
| S DIC#4 | | | | | | | | | | |
| B1920 | G1919 | R1920 | B1918 | ... | R1284 | G1283 | R1282 | B1282 | G1281 | Dummy |
| S DIC#5 | | | | | | | | | | |
| B1280 | G1279 | R1280 | B1278 | ... | R644 | G643 | R642 | B642 | G641 | Dummy |
| S DIC#6 | | | | | | | | | | |
| B640 | G639 | R640 | B638 | ... | R4 | G3 | R2 | B2 | G1 | Dummy |

| ODD LINE (Start from 4319 GATE LINE) for 1 st , 2 nd , 3 rd , 4 th , 5 thLine | | | | | | | | | | |
|---|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| 1st | 2nd | 3rd | 4th | ... | 956th | 957th | 958th | 959th | 960th | 961st |
| S DIC#1 | | | | | | | | | | |
| G3840 | R3839 | B3839 | G3838 | ... | B3203 | R3203 | B3201 | G3202 | R3201 | Dummy |
| S DIC#2 | | | | | | | | | | |
| G3200 | R3199 | B3199 | G3198 | | B2563 | R2563 | B2561 | G2562 | R2561 | Dummy |
| S DIC#3 | | | | | | | | | | |
| G2560 | R2559 | B2559 | G2558 | | B1923 | R1923 | B1921 | G1922 | R1921 | Dummy |
| S DIC#4 | | | | | | | | | | |
| G1920 | R1919 | B1919 | G1918 | | B1283 | R1283 | B1281 | G1282 | R1281 | Dummy |
| S DIC#5 | | | | | | | | | | |
| G1280 | R1279 | B1279 | G1278 | | B643 | R643 | B641 | G642 | R641 | Dummy |
| S DIC#6 | | | | | | | | | | |
| G640 | R639 | B639 | G638 | | B3 | R3 | B1 | G2 | R1 | Dummy |

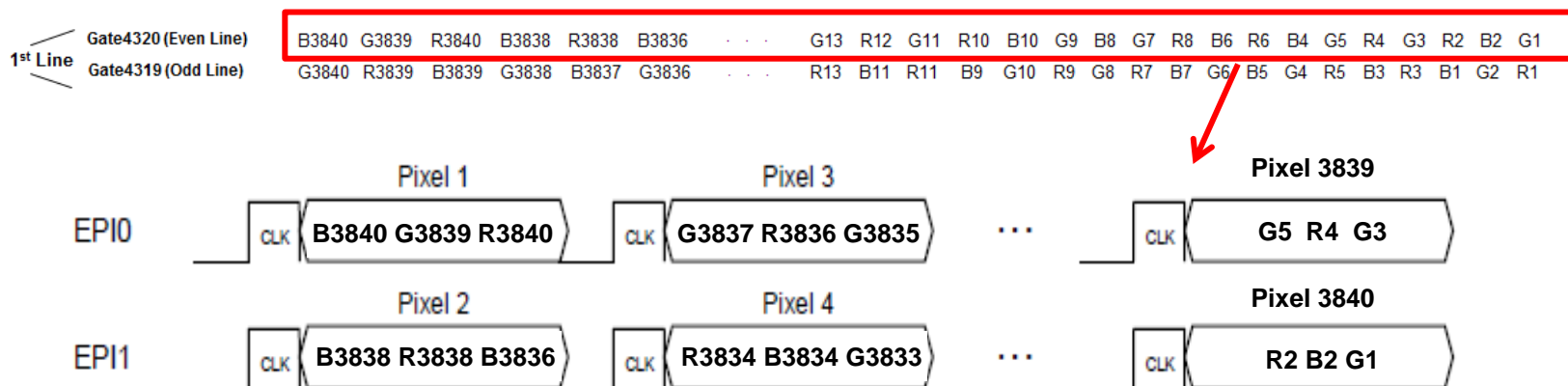
1.2 V16 UHD 60Hz M+ DRD Data output sequence

1.54G EPI Interface Spec.



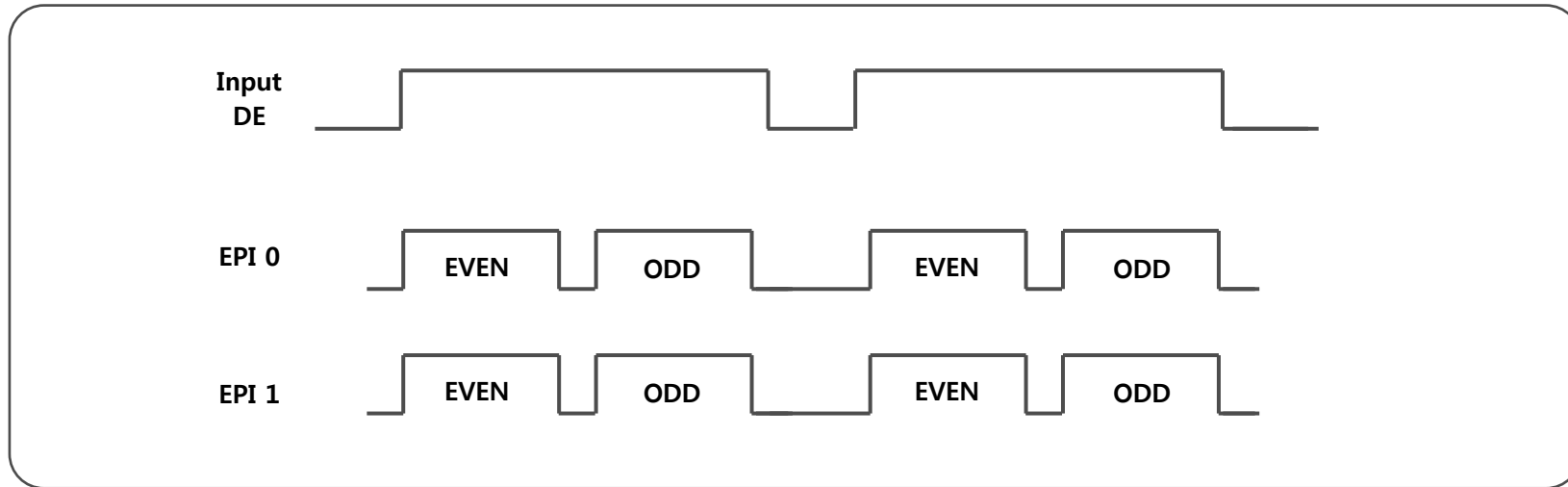
➤ T-con
- EPI 6 * 2Lane (1.5G) (out)

RGB Data 2Pair mode for UHD M+ DRD (Reference)



1.2 V16 UHD 60Hz M+ DRD Data output sequence

■ Sequence



2. Inv1/2/3/4

1.54Gbps EPI Spec

V15 / V16 1.5Gbps D-IC Control1 Packet

| CTR1 | Normal |
|------|-------------------|
| 0 | H |
| 1 | H |
| 2 | SOE_START (10) |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | SOE_END (8) |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | NewV4DOT |
| 21 | INV1 |
| 22 | INV2 |
| 23 | INV3 |
| 24 | INV4 |
| 25 | - |
| 26 | L |
| 27 | L |

※ INV 1,2,3,4 signal can be change by 1H Line
so it need Bit assign 4X8

• Inv1/2/3/4
: Every 1H, Tx send a inversion
information to Rx by packet
Construction of repeat is every 8H.

EPI signal → DIC Output

