

| Signal          | Description  | Min                | Тур                                | Max                            |
|-----------------|--|--------------------|------------------------------------|--------------------------------|
|                 | EMV hardware propagation delay<br>(3.3V TTL to trigger)                    |                    | 10 ns                              |                                |
| t1              |  |                    |                                    |                                |
|                 | MV hardware propagation delay<br>(5V to trigger optocoupler)               |                    | 8 us ON<br>30 us OFF<br>(Note 1)   |                                |
|                 | MV hardware propagation delay<br>(12V to trigger optocoupler)              |                    | 2.5 us ON<br>40 us OFF<br>(Note 1) |                                |
| t2              | Debounce time  | 1.0 us             | 1 us (default for Rev 4)           | 50.0 us (default for Rev<br>3) |
| t3              | Programmable GPO delay   | 0.0 us             | in 10 us steps                     | 2.5 sec                        |
| t4              | Start of trigger to start of GPO<br>(t1 + t2 + t3 + t15)                   |                    | 9.0 us                             |                                |
| t5              | Programmable GPO time  | 10.0 us            | in 10 us steps                     | 2.5 sec                        |
| t6              | Programmable integration delay   | 0.0 us             | in 10 us steps                     | 2.5 sec                        |
| t7              | Start of trigger to start of<br>integration<br>(t1 + t2 + t6 + t17)        |                    | 25.0 us<br>(Note 2)                |                                |
| t8              | Integration time   | 10.0 us            | in 10 us steps                     | 1.0 sec                        |
| t9              | End of integration to start of read<br>out                                 |                    | 21.0 us                            |                                |
| t10             | Read out time  |                    | See Readout Times                  |                                |
| t11             | End of read out to start of trigger  | 19 us (no updates) | depends on updates                 | 1.0 ms (with descriptors)      |
| t12             | Start of trigger to start of busy  |                    | t1 + t2                            |                                |
| t13             | End of busy to start of trigger  |                    | 25.0 ns                            |                                |
| t14             | Frame period   |                    | t7 + t8 + t9 + t10 + t11           |                                |
| t15<br>&<br>t16 | EMV hardware propagation delay<br>(3.3V TTL from GPO)                      |                    | 20 ns                              |                                |
|                 | MV hardware propagation delay<br>(GPO optocoupler with 1K pullup<br>to 5V) |                    | 3 us ON<br>43 us OFF<br>(Note 1)   |                                |
| t17             | ILT shutter setup time   |                    | PL-B952/953 - 7.8 us               |                                |
|                 |  |                    | PL-B954/955/871 - 13.5 us          |                                |
|                 |  |                    | PL-B954h/955h - 12.5 us            |                                |
|                 |  |                    | PL-B956/957/872 - 10.2 us          |                                |
|                 |  |                    | PL-B958/959 - 9.5 us               |                                |
|                 |  |                    | PL-B873 - 12 us                    |                                |