

miSmartBuffers

| Product | Input Type               | Input Freq.        | Crystal Driver | Diff Outputs LVPECL/LVDS/HCSL | CMOS Outputs          | Output Banks | Divider Value     | Per-output Enable | Per-output Phase Adjust | OE Control                 | Host Bus | Internal Memory | Operating Temp (°C) | Pkg    | Pkg Size (mm) |
|---------|--------------------------|--------------------|----------------|-------------------------------|-----------------------|--------------|-------------------|-------------------|-------------------------|----------------------------|----------|-----------------|---------------------|--------|---------------|
| ZL40230 | 2 Diff/ LVCMOS + Crystal | <1.6 GHz           | •              | 10 LVPECL/LVDS/HCSL           | 1 LVCMOS              | 2            | 1 to 8—for LVCMOS | •                 | N/A                     | SW per output/ HW per bank | SPI      | N/A             | −40 to 85           | QFN-48 | 7 × 7         |
| ZL40235 |                          | 5 LVPECL/LVDS/HCSL |                | QFN-40                        |                       |              |                   |                   |                         |                            |          |                 |                     | 6 × 6  |               |
| ZL40240 |                          | 250 MHz            |                | N/A                           | 10 LVCMOS             | 1            | N/A               |                   |                         |                            |          |                 |                     | QFN-32 | 5 × 5         |
| ZL40250 | 3 Diff/ LVCMOS + Crystal | <1 GHz             | •              | 0–6                           | 0–12                  | 6            | 32-bit            | •                 | •                       | Per out-put by GPIO        | SPI/I2C  | ROM             | −40 to 85           | QFN-56 | 8 × 8         |
| ZL40251 |                          |                    |                | EEPROM                        |                       |              |                   |                   |                         |                            |          |                 |                     |        |               |
| ZL40252 |                          |                    |                | 0–10                          | 0–20                  |              |                   |                   |                         |                            |          | ROM             |                     |        |               |
| ZL40253 |                          |                    |                | EEPROM                        |                       |              |                   |                   |                         |                            |          |                 |                     |        |               |
| ZL40255 |                          |                    |                |                               | 0–3 400 mV/800 mV CML | 0–6          |                   |                   |                         |                            |          | 3               |                     |        |               |

| Product | Input Type               | Input Freq. | Crystal Driver | Diff Outputs LVPECL/LVDS/HCSL | CMOS Outputs | Output Banks | Divider Value     | OE Control | Operating Temp (°C) | Pkg    | Pkg Size (mm) |
|---------|--------------------------|-------------|----------------|-------------------------------|--------------|--------------|-------------------|------------|---------------------|--------|---------------|
| ZL40231 | 2 Diff/ LVCMOS + Crystal | <1.6 GHz    | •              | 10 LVPECL/LVDS/HCSL           | 1LVCMOS      | 2            | 1 to 8—for LVCMOS | Per bank   | −40 to 85           | QFN-48 | 7 × 7         |
| ZL40234 |                          |             |                | 4 LVPECL/LVDS/HCSL            |              |              |                   |            |                     |        |               |
| ZL40241 |                          | <200 MHz    |                | N/A                           | 10 LVCMOS    | 1            | N/A               |            |                     |        |               |
| ZL40260 |                          | <1.6 GHz    | N/A            | 10 LVPECL                     | 0            |              |                   |            |                     |        |               |

## LVPECL miClockBuffers

| Product | Output Type | Inputs | Outputs  | Input Termination | Switching | 750 MHz Additive Jitter fs RMS typ | Input Type                    | Input Coupling | Operating Frequency | Power Supply (V) | Operating Temp (°C) | Pkg      | Pkg Size (mm) |            |           |        |       |
|---------|-------------|--------|----------|-------------------|-----------|------------------------------------|-------------------------------|----------------|---------------------|------------------|---------------------|----------|---------------|------------|-----------|--------|-------|
| ZL40200 | LVPECL      | 1      | 2        | External          | N/A       | 30–40                              | LVPECL<br>LVDS<br>HCSL<br>CML | DC or AC       | Up to 750 MHz       | 2.5 or 3.3       | –40 to 85           | QFN-16   | 3 x 3         |            |           |        |       |
| ZL40201 |             |        |          | Internal          |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40202 |             |        | 4        | External          |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40203 |             |        |          | Internal          |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40204 |             |        | 6        | External          |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40205 |             |        |          | Internal          |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40206 |             | 8      | External | Simple            | 106–121   | LVPECL<br>LVDS<br>HCSL<br>CML      |                               |                |                     |                  |                     | DC or AC | Up to 750 MHz | 2.5 or 3.3 | –40 to 85 | QFN-32 | 5 x 5 |
| ZL40207 |             |        | Internal |                   |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40224 |             |        | External |                   |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40225 |             |        | Internal |                   |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40208 |             | 6      | External | Glitch Free       |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40209 |             |        | Internal |                   |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40210 |             | 8      | External |                   |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |
| ZL40211 |             |        | Internal |                   |           |                                    |                               |                |                     |                  |                     |          |               |            |           |        |       |

# Precision Differential Fanout Buffers Selector Guide

## LVDS miClockBuffers

| Product | Output Type | Inputs | Outputs  | Input Termination | Switching   | 750 MHz Additive Jitter fs RMS typ | Input Type                    | Input Coupling | Operating Frequency | Power Supply (V) | Operating Temp (°C) | Pkg    | Pkg Size (mm) |
|---------|-------------|--------|----------|-------------------|-------------|------------------------------------|-------------------------------|----------------|---------------------|------------------|---------------------|--------|---------------|
| ZL40212 | LVDS        | 1      | 2        | External          | N/A         | 78–138                             | LVPECL<br>LVDS<br>HCSL<br>CML | DC or AC       | Up to 750 MHz       | 2.5 or 3.3       | –40 to 85           | QFN-16 | 3 x 3         |
| ZL40213 |             |        |          | Internal          |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40214 |             |        | 4        | External          |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40215 |             |        |          | Internal          |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40216 |             |        | 6        | External          |             |                                    |                               |                |                     |                  |                     | QFN-32 | 5 x 5         |
| ZL40217 |             |        |          | Internal          |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40218 |             | 8      | External | Simple            |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40219 |             |        | Internal |                   |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40226 |             |        | External |                   |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40227 |             |        | Internal |                   |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40220 |             | 2      | 6        | External          | Glitch Free | 165–194                            |                               |                |                     |                  |                     |        |               |
| ZL40221 |             |        |          | Internal          |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40222 |             |        | 8        | External          |             |                                    |                               |                |                     |                  |                     |        |               |
| ZL40223 |             |        |          | Internal          |             |                                    |                               |                |                     |                  |                     |        |               |



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