# Default Configurations for Universal Frequency Translator Family of Devices

## Product Ordering Guide

| IDT8T49N105 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Code (ddd) | Mode | CONFIG | Input Frequency (MHz) | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | Output Frequency (MHz) |
| | | | CLK | XTAL_IN | | | Q | Q |
| -000 | LoBW | 0 | 25 | 40 | Manual | Pin | P/on | 125 |
| | | 1 | 19.44 | 40 | | | D/off | 622.08 |
| -001 | LoBW | 0 | 25 | 40 | Manual | Pin | D/on | 125 |
| | | 1 | 25 | 40 | | | D/off | 125 |
| -002 | LoBW | 0 | 61.44 | 40 | Manual | Pin | D/on | 61.44 |
| | | 1 | 61.44 | 40 | | | D/off | 61.44 |
| -999 | LoBW | 0 | 25 | 40 | Manual | Pin | P/off | 125 |
| | | 1 | 19.44 | 40 | | | D/off | 622.08 |

## ICS840N202

| Code (ddd) | Mode | CONFIG | Input Frequency (MHz) | | | Switchover Type | Switchover Mode | Output Power-up State | | Output Frequency (MHz) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CLK0 | CLK1 | XTAL_IN | | | Q0 | Q1 | Q0 | Q1 |
| -000 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | on | on | 125 | 125 |
| | | 1 | 25 | 25 | 40 | | | on | on | 156.25 | 156.25 |
| -001 | LoBW | 0 | 19.44 | 19.44 | 27 | Manual | Pin | on | on | 125 | 125 |
| | | 1 | 19.44 | 19.44 | 27 | | | on | on | 25 | 25 |
| -999 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | off | off | 125 | 125 |
| | | 1 | 25 | 25 | 40 | | | off | off | 156.25 | 156.25 |

### ICS849N202

| Code (ddd) | Mode | CONFIG | Input Frequency (MHz) | | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | | Output Frequency (MHz) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CLK0 | CLK1 | XTAL_IN | | | Q0 | Q1 | Q0 | Q1 |
| -000 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | P/on | P/on | 25 | 25 |
| | | 1 | 25 | 25 | 40 | | | P/on | P/on | 156.25 | 156.25 |
| -001 | HiBW | 0 | 133.333 | 133.333 | n/a | Manual | Pin | P/on | P/on | 400 | 400 |
| | | 1 | 133.333 | 133.333 | n/a | | | P/on | P/on | 533.333 | 533.333 |
| -006 | LoBW | 0 | 156.25 | 156.25 | 25 | Manual | Pin | P/on | P/on | 156.25 | 156.25 |
| | | 1 | 155.52 | 155.52 | 25 | | | P/on | P/on | 155.52 | 155.52 |
| -008 | SYNTH | 0 | n/a | n/a | 25 | Manual | Pin | P/on | P/on | 100 | 100 |
| | | 1 | n/a | n/a | 25 | | | P/on | P/on | 125 | 125 |
| -009 | LoBW | 0 | 77.76 | 77.76 | 38.88 | Manual | Pin | P/on | P/off | 155.52 | 155.52 |
| | | 1 | 77.76 | 77.76 | 38.88 | | | P/on | P/off | 155.52 | 155.52 |
| -010 | LoBW | 0 | 156.25 | 156.25 | 25 | Manual | Pin | P/on | P/on | 644.53125 | 644.53125 |
| | | 1 | 156.25 | 156.25 | 25 | | | P/on | P/on | 322.265625 | 322.265625 |
| -011 | LoBW | 0 | 155.52 | 155.52 | 26 | Manual | Pin | P/on | P/off | 100 | 100 |
| | | 1 | 155.52 | 155.52 | 26 | | | P/on | P/off | 155.52 | 155.52 |
| -012 | LoBW | 0 | 40.08 | 40.08 | 25 | Manual | Pin | D/on | D/on | 320.64 | 320.64 |
| | | 1 | 40.08 | 40.08 | 25 | | | D/on | D/on | 240.48 | 240.48 |
| -013 | SYNTH | 0 | n/a | n/a | 25 | Manual | Pin | D/on | D/on | 40.08 | 40.08 |
| | | 1 | n/a | n/a | 25 | | | D/on | D/on | 40.08 | 40.08 |
| -014 | LoBW | 0 | 0.25 | 0.25 | 40 | Manual | Pin | P/on | P/on | 12 | 12 |
| | | 1 | 0.25 | 0.25 | 40 | | | P/on | P/on | 12 | 12 |
| -015 | LoBW | 0 | 0.008 | 0.008 | 40 | Manual | Pin | D/on | D/on | 155.52 | 155.52 |
| | | 1 | 0.008 | 0.008 | 19.44 | | | D/on | D/on | 155.52 | 155.52 |
| -016 | SYNTH | 0 | n/a | n/a | 25 | Manual | Pin | D/on | D/on | 133.33 | 133.33 |
| | | 1 | n/a | n/a | 25 | | | D/on | D/on | 125 | 125 |
| -017 | HiBW | 0 | 156.25 | 156.25 | n/a | Manual | Pin | D/on | D/on | 644.53125 | 644.53125 |
| | | 1 | 156.25 | 156.25 | n/a | | | D/on | D/on | 322.265625 | 322.265625 |
| -018 | LoBW | 0 | 100 | 100 | 27 | Manual | Pin | D/on | D/on | 100 | 100 |
| | | 1 | 100 | 100 | 27 | | | P/on | P/on | 50 | 50 |
| -019 | SYNTH | 0 | n/a | n/a | 25 | Manual | Pin | D/on | D/on | 156.25 | 156.25 |
| | | 1 | n/a | n/a | 25 | | | D/on | D/on | 100 | 100 |
| -020 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | D/on | D/on | 156.25 | 156.25 |
| | | 1 | 74.25 | 74.25 | 40 | | | D/on | D/on | 148.5 | 148.5 |
| -021 | LoBW | 0 | 644.53125 | 644.53125 | 25 | Manual | Pin | P/on | P/on | 161.13 | 161.13 |
| | | 1 | 8.0565 | 8.0565 | 25 | | | P/on | P/on | 161.13 | 161.13 |
| -022 | LoBW | 0 | 698.8 | 698.8 | 25 | Manual | Pin | P/on | P/on | 174.7 | 174.7 |
| | | 1 | 8.735 | 8.735 | 25 | | | P/on | P/on | 174.7 | 174.7 |
| -999 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | P/off | P/off | 25 | 25 |
| | | 1 | 25 | 25 | 40 | | | P/off | P/off | 156.25 | 156.25 |

| ICS849N212 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Code (ddd) | Mode | CONFIG | Input Frequency (MHz) | | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | | Output Frequency (MHz) | |
| | | | CLK0 | CLK1 | XTAL_IN | | | Q0 | Q1 | Q0 | Q1 |
| -000 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | P/on | D/on | 25 | 25 |
| | | 1 | 25 | 25 | 40 | | | P/on | D/on | 156.25 | 156.25 |
| -001 | LoBW | 0 | 2.048 | 2.048 | 25 | Manual | Pin | P/on | D/on | 25 | 25 |
| | | 1 | 25 | 25 | 25 | | | P/on | D/on | 2.048 | 2.048 |
| -004 | LoBW | 0 | 2.048 | 2.048 | 25 | Manual | Pin | P/on | D/on | 125 | 125 |
| | | 1 | 156.25 | 156.25 | 25 | | | P/on | D/on | 125 | 125 |
| -005 | LoBW | 0 | 0.03125 | 0.03125 | 27 | Manual | Pin | D/on | D/off | 74.25 | 74.25 |
| | | 1 | 0.03125 | 0.03125 | 27 | | | D/on | D/off | 74.25 | 74.25 |
| -006 | LoBW | 0 | 0.0675 | 0.0675 | 27 | Manual | Pin | D/on | D/off | 74.25 | 74.25 |
| | | 1 | 0.0675 | 0.0675 | 27 | | | D/on | D/off | 74.25 | 74.25 |
| -007 | LoBW | 0 | 0.135 | 0.135 | 27 | Manual | Pin | D/on | D/off | 172 | 172 |
| | | 1 | 0.135 | 0.135 | 27 | | | P/on | D/off | 172 | 172 |
| -008 | LoBW | 0 | 10 | 10 | 25 | Manual | Pin | P/on | D/on | 100 | 100 |
| | | 1 | 10.24 | 10.24 | 25 | | | P/on | D/on | 10 | 10 |
| -009 | LoBW | 0 | 25 | 25 | 25 | Manual | Pin | P/on | D/on | 125 | 125 |
| | | 1 | 2.048 | 2.048 | 25 | | | P/on | D/on | 125 | 125 |
| -999 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | P/off | D/off | 25 | 25 |
| | | 1 | 25 | 25 | 40 | | | P/off | D/off | 156.25 | 156.25 |

# Default Configurations for Universal Frequency Translator Family of Devices



| Code (ddd) | Mode | CONFIG | Input Frequency (MHz) | | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | | Output Frequency (MHz) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CLK0 | CLK1 | XTAL_IN | | | Q0 | Q1 | Q0 | Q1 |
| -000 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | P/on | P/on | 125 | 125 |
| | | 1 | 19.44 | 19.44 | 40 | | | P/on | P/on | 622.08 | 622.08 |
| -001 | LoBW | 0 | 156.25 | 156.25 | 40 | Manual | Pin | P/on | P/on | 156.25 | 156.25 |
| | | 1 | 1 | 1 | 40 | | | P/on | P/on | 156.25 | 156.25 |
| -002 | LoBW | 0 | 30.72 | 30.72 | 40 | Manual | Pin | P/on | P/on | 122.88 | 122.88 |
| | | 1 | 30.72 | 30.72 | 40 | | | P/on | P/on | 122.88 | 122.88 |
| -003 | LoBW | 0 | 600 | 600 | 40 | Manual | Pin | P/on | P/on | 1200 | 1200 |
| | | 1 | 605 | 605 | 40 | | | P/on | P/on | 1210 | 1210 |
| -004 | LoBW | 0 | 91.7 | 91.7 | 40 | Manual | Pin | P/on | P/on | 165 | 165 |
| | | 1 | 16.7 | 16.7 | 40 | | | P/on | P/on | 30 | 30 |
| -005 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | P/on | P/on | 155.52 | 155.52 |
| | | 1 | 25 | 25 | 40 | | | P/on | P/on | 155.52 | 155.52 |
| -006 | LoBW | 0 | 156.25 | 156.25 | 40 | Manual | Pin | P/on | P/on | 156.255 | 156.255 |
| | | 1 | 1 | 1 | 40 | | | P/on | P/on | 156.255 | 156.255 |
| -007 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | P/on | P/on | 25 | 25 |
| | | 1 | 25 | 25 | 40 | | | P/on | P/on | 25 | 25 |
| -009 | SYNTH / HiBW | 0 | n/a | n/a | 40 | Manual | Pin | D/on | D/on | 156.25 | 156.25 |
| | | 1 | 320 | 320 | n/a | | | D/on | D/on | 156.25 | 156.25 |
| -010 | HiBW | 0 | 156.25 | 156.25 | n/a | Manual | Pin | D/on | D/off | 125 | 125 |
| | | 1 | 320 | 320 | n/a | | | D/on | D/off | 125 | 125 |
| -012 | SYNTH | 0 | n/a | n/a | 25 | Manual | Pin | P/on | P/on | 750 | 750 |
| | | 1 | n/a | n/a | 25 | | | P/on | P/on | 450 | 450 |
| -013 | LoBW | 0 | 156.25 | 156.25 | 40 | Manual | Pin | D/on | D/on | 156.25 | 156.25 |
| | | 1 | 125 | 125 | 40 | | | D/on | D/on | 125 | 125 |
| -014 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | D/on | D/off | 156.25 | 156.25 |
| | | 1 | 25 | 25 | 40 | | | D/on | D/off | 125 | 125 |
| -015 | LoBW | 0 | 156.25 | 156.25 | 38.88 | Manual | Pin | D/on | D/on | 156.25 | 156.25 |
| | | 1 | 100 | 100 | 38.88 | | | P/on | P/on | 100 | 100 |
| -016 | HiBW | 0 | 125 | 125 | n/a | Manual | Pin | P/on | P/on | 161.1328125 | 161.1328125 |
| | | 1 | 156.25 | 156.25 | n/a | | | P/on | P/on | 161.1328125 | 161.1328125 |
| -017 | LoBW | 0 | 161.1328125 | 161.1328125 | 40 | Manual | Pin | P/on | P/on | 25 | 25 |
| | | 1 | 31.25 | 31.25 | 40 | | | P/on | P/on | 25 | 25 |
| -018 | LoBW | 0 | 156.25 | 156.25 | 38.88 | Manual | Pin | D/on | D/on | 156.25 | 156.25 |
| | | 1 | 100 | 100 | 38.88 | | | D/on | D/on | 100 | 100 |
| -019 | LoBW | 0 | 125 | 125 | 40 | Manual | Pin | P/on | P/on | 161.1328125 | 161.1328125 |
| | | 1 | 156.25 | 156.25 | 40 | | | P/on | P/on | 161.1328125 | 161.1328125 |
| -023 | SYNTH | 0 | n/a | n/a | 40 | Manual | Pin | D/on | D/on | 187.512 | 187.512 |
| | | 1 | 320 | 320 | n/a | | | D/on | D/on | 187.512 | 187.512 |
| -024 | HiBW | 0 | 187.512 | 187.512 | n/a | Manual | Pin | D/on | D/on | 125 | 125 |
| | | 1 | 187.512 | 187.512 | n/a | | | D/on | D/on | 156.25 | 156.25 |
| -025 | LoBW | 0 | 644.53125 | 644.53125 | 40 | Manual | Pin | P/on | P/on | 644.53125 | 644.53125 |
| | | 1 | 698.8123348 | 698.8123348 | 40 | | | P/on | P/on | 698.8123348 | 698.8123348 |
| -026 | LoBW | 0 | 15.36 | 15.36 | 38.88 | Manual | Pin | D/on | D/off | 122.88 | 122.88 |
| | | 1 | 10.24 | 10.24 | 25 | | | P/on | P/off | 10 | 10 |
| -027 | SYNTH | 0 | n/a | n/a | 26 | Manual | Pin | P/on | P/on | 644.53125 | 644.53125 |
| | | 1 | n/a | n/a | 25 | | | P/on | P/on | 10 | 10 |
| -999 | LoBW | 0 | 25 | 25 | 40 | Manual | Pin | P/off | P/off | 125 | 125 |
| | | 1 | 19.44 | 19.44 | 40 | | | P/off | P/off | 622.08 | 622.08 |

Table: IDT8T49N203

## IDT8T49N205

| Code (ddd) | Mode | CONFIG | Input Frequency (MHz) | | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | | Output Frequency (MHz) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CLK0 | CLK1 | XTAL_IN | | | Q0 | Q1 | Q0 | Q1 |
| -000 | LoBW | 0 | 0.008 | 0.008 | 40 | Manual | Pin | P/on | P/on | 19.44 | 19.44 |
| | | 1 | 10 | 10 | 40 | | | P/on | P/on | 155.52 | 155.52 |
| -001 | HiBW | 0 | 100 | 100 | n/a | Manual | Pin | P/on | P/on | 100 | 100 |
| | | 1 | 133.3333333 | 133.3333333 | n/a | | | P/on | P/on | 133.3333333 | 133.3333333 |
| -003 | LoBW | 0 | 19.44 | 19.44 | 25 | Manual | Pin | D/on | D/on | 155.52 | 155.52 |
| | | 1 | 19.44 | 19.44 | 40 | | | D/on | D/on | 155.52 | 155.52 |
| -004 | LoBW | 0 | 14.318 | 14.318 | 40 | Manual | Pin | P/on | P/on | 14.318 | 14.318 |
| | | 1 | 14.318 | 14.318 | 40 | | | P/on | P/on | 14.318 | 14.318 |
| -005 | LoBW | 0 | 10 | 10 | 40 | Manual | Pin | P/on | P/on | 10 | 10 |
| | | 1 | 10 | 10 | 40 | | | P/on | P/on | 10 | 10 |
| -006 | LoBW | 0 | 19.44 | 19.44 | 38.88 | Manual | Pin | P/on | P/on | 25 | 25 |
| | | 1 | 19.44 | 19.44 | 38.88 | | | P/on | P/on | 125 | 125 |
| -007 | LoBW | 0 | 19.44 | 19.44 | 38.88 | Manual | Pin | P/on | P/on | 25 | 25 |
| | | 1 | 19.44 | 19.44 | 38.88 | | | P/on | P/on | 156.25 | 156.25 |
| -009 | LoBW | 0 | 25 | 25 | 25 | Manual | Pin | D/on | D/on | 25 | 25 |
| | | 1 | 25 | 25 | 40 | | | D/on | D/on | 25 | 25 |
| -999 | LoBW | 0 | 0.008 | 0.008 | 40 | Manual | Pin | P/off | P/off | 19.44 | 19.44 |
| | | 1 | 10 | 10 | 40 | | | P/off | P/off | 155.52 | 155.52 |

| IDT8T49N222 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Code (ddd) | Mode | Input Frequency (MHz) | | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | | Output Frequency (MHz) | |
| | | CLK0 | CLK1 | XTAL_IN | | | Q0 | Q1 | Q0 | Q1 |
| -000 | LoBW | 25 | 25 | 40 | Manual | Pin | P/on | P/on | 156.25 | 25 |
| -001 | LoBW | 74.25 | 74.25 | 40 | Manual | Pin | P/on | P/on | 148.5 | 74.25 |
| -002 | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | P/on | P/on | 622.08 | 155.52 |
| -003 | LoBW | 125 | 125 | 40 | Manual | Pin | P/on | P/on | 307.2 | 122.88 |
| -004 | LoBW | 38.88 | 38.88 | 25 | Manual | Pin | D/on | D/on | 155.52 | 155.52 |
| -100 | HiBW | 25 | 25 | n/a | Manual | Pin | D/on | D/on | 100 | 100 |
| -101 | HiBW | 25 | 25 | n/a | Manual | Pin | D/on | D/on | 125 | 125 |
| -108 | LoBW | 122.88 | 122.88 | 25 | Manual | Pin | D/on | D/on | 122.88 | 122.88 |
| -109 | SYNTH | n/a | n/a | 25 | Manual | Pin | D/on | D/on | 125 | 156.25 |
| -110 | HiBW | 25 | 25 | n/a | Manual | Pin | D/on | D/on | 156.25 | 100 |
| -121 | SYNTH | n/a | n/a | 40 | Manual | Pin | D/on | D/on | 156.25 | 50 |
| -122 | LoBW | 10 | 10 | 40 | Manual | Pin | D/on | D/on | 1000 | 100 |
| -123 | LoBW | 25 | 25 | 40 | Manual | Pin | D/on | D/on | 125 | 156.25 |
| -124 | LoBW | 10 | 10 | 40 | Manual | Register | D/on | D/on | 925 | 92.5 |
| -125 | LoBW | 10 | 10 | 40 | Manual | Register | D/on | D/on | 1000 | 100 |
| -126 | LoBW | 25 | 25 | 38.88 | Manual | Pin | D/on | D/on | 100 | 133.3333333 |
| -999 | LoBW | 25 | 25 | 40 | Manual | Pin | P/off | P/off | 156.25 | 25 |

## IDT8T49N244

| Code (ddd) | PLL-A | LoBW | Input Frequency (MHz) | | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | | Output Frequency (MHz) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CLK0 | CLK1 | REF_IN | | | Q0 | Q1 | Q0 | Q1 |
| -000 | PLL-A | LoBW | 25 | 25 | 40 | Manual | Pin | D/off | D/off | 622.08 | 622.08 |
| | PLL-B | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 644.53125 | 644.53125 |
| -001 | PLL-A | LoBW | 2.048 | 2.048 | 40 | Manual | Pin | D/off | D/off | 125 | 125 |
| | PLL-B | LoBW | 77.76 | 77.76 | 40 | Manual | Pin | D/off | D/off | 125 | 125 |
| -999 | PLL-A | LoBW | 25 | 25 | 40 | Manual | Pin | D/off | D/off | 622.08 | 622.08 |
| | PLL-B | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 644.53125 | 644.53125 |

### IDT8T49N281

| Code (ddd) | Serial Port Protocol / Device Address | Boot Method / EEPROM Addressing / Address | Crystal Frequency (MHz) | Input Frequency (MHz) CLK0 | Input Frequency (MHz) CLK1 | Locked Loop Bandwidth (Hz) | Q0 | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | GPIO0 | GPIO1 | GPIO2 | GPIO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Output Frequency (MHz) / Output Style (P = LVPECL, D=LVDS, CP = LVCMOS in-phase, CN = LVCMOS out-of-phase) Inversion (-) or non-inversion (+) Power-up State / Frequency Source / Phase Delay (steps) | | | | | | | | GPIO Direction / GPIO Function GPIO = General Purpose I/O OE = Output Enable input CSEL = Clock Select input LOSn, LOLn, HOLDn = Alarm output | | | |
| -001 | 0b1111100 | OTP | 38.88 | 0.008 | 0.008 | 4 Hz | 156.25 | 156.25 | 100 | 125 | 125 | 125 | 25 | 100 | In | In | In | In |
| | | | | | | | P/+/on | P/+/on | P/+/on | P/+/on | P/+/on | P/+/on | P/+/on | P/+/on | | | | |
| | I2C | 0b1010000 | | | | | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | Q2 | GPI | GPI | GPI | GPI |
| | | 1-Byte | | | | | None | None | None | None | None | None | None | None | | | | |
| -003 | 0b1101100 | OTP | 40 | DIS | DIS | 64 Hz | 156.25 | 125 | 100 | 26 | N/A | N/A | N/A | N/A | Out | In | In | In |
| | | | | | | | CN/+/on | CN/+/on | CN/+/on | CN/+/on | P/+/off | P/+/off | P/+/off | P/+/off | | | | |
| | I2C | 0b1010000 | | | | | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL1 | LOL0 | GPI | GPI | GPI |
| | | 1-Byte | | | | | None | None | None | None | None | None | None | None | | | | |
| -004 | 0b1101100 | OTP | 40 | DIS | DIS | 4 Hz | N/A | N/A | N/A | 30 | 250 | 80 | 50 | 100 | Out | In | In | In |
| | | | | | | | -/+/off | -/+/off | -/+/off | L/+/on | L/+/on | L/+/on | L/+/on | L/+/on | | | | |
| | I2C | 0b1010000 | | | | | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | LOL0 | GPI | GPI | GPI |
| | | 1-Byte | | | | | None | None | None | None | None | None | None | None | | | | |
| -005 | 0b1101100 | OTP | 40 | DIS | DIS | 64 Hz | 156.25 | 125 | 100 | 26 | 156.25 | 156.25 | N/A | 25 | Out | In | In | In |
| | | | | | | | CN/+/on | CN/+/on | CN/+/on | CN/+/on | P/+/on | P/+/on | P/+/off | CN/+/on | | | | |
| | I2C | 0b1010000 | | | | | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | LOL0 | GPI | GPI | GPI |
| | | 1-Byte | | | | | None | None | None | None | None | None | None | None | | | | |
| -006 | 0b11101100 | OTP | 38.88 | 0.008 | 0.008 | 4 Hz | 156.25 | 156.25 | 100 | 100 | 125 | 100 | 50 | 50 | In | In | In | In |
| | | | | | | | D/+/on | L/+/on | P/+/on | L/+/on | P/+/on | CN/+/on | CN/+/on | CN/+/on | | | | |
| | I2C | 0b1010000 | | | | | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | Q2 | Q2 | Q2 | GPI | GPI | GPI | GPI |
| | | 1-Byte | | | | | None | None | None | None | None | None | None | None | | | | |
| -998 | 0b1111100 | EEPROM | 38.88 | DIS | DIS | 64Hz | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | In | In | In | In |
| | | | | | | | P/+/off | P/+/off | P/+/off | P/+/off | CN/+/off | P/+/off | P/+/off | P/+/off | | | | |
| | | 0b1010000 | | | | | PLL0 | PLL1 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | OE | OE | OE | OE |
| | | 1-Byte | | | | | None | None | None | None | None | None | None | None | | | | |
| -999 | 0b1111100 | EEPROM | 38.88 | DIS | DIS | 64 Hz | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | In | In | In | In |
| | | | | | | | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | | | | |
| | I2C | 0b1010000 | | | | | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | GPI | GPI | GPI | GPI |
| | | 1-Byte | | | | | None | None | None | None | None | None | None | None | | | | |

## IDT8T49N282

| Code (ddd) | Serial Port Protocol / Device Address | Boot Method / EEPROM Addressing / Address | Crystal Frequency (MHz) | PLL | Input Frequency (MHz) by PLL: PLL0 / PLL1 | | | | Locked Loop Bandwidth (Hz) | Output Frequency (MHz) / Output Style (P = LVPECL, D=LVDS, CP = LVCMOS in-phase, CN = LVCMOS out-of-phase) Inversion (-) or non-inversion (+) Power-up State / Frequency Source / Phase Delay (steps) | | | | | | | | GPIO Direction / GPIO Function GPIO = General Purpose I/O OE = Output Enable input CSEL = Clock Select input LOSn, LOLn, HOLDn = Alarm output | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CLK0 | CLK1 | CLK2 | CLK3 | | Q0 | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | GPIO0 | GPIO1 | GPIO2 | GPIO3 | GPIO4 | GPIO5 | GPIO6 | GPIO7 |
| -002 | 0b1111100 | EEPROM | 38.88 | 0 | 25 | 25 | DIS | DIS | 8 Hz | 25 | 25 | 161.1328125 | 161.1328125 | 156.25 | 156.25 | 156.25 | 25 | Out | Out | Out | Out | Out | Out | In | Out |
| | | | | | | | | | | CN/+/on | P/+/on | P/+/on | P/+/on | P/+/off | D/+/on | D/+/on | P/+/on | | | | | | | | |
| | | 0b1010000 | | 1 | DIS | DIS | DIS | 125 | 8 Hz | PLL1 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | LOL0 | HOLD0 | LOS0 | LOL1 | HOLD1 | LOS1 | OE6 | LOS3 |
| | | 2-Byte | | | | | | | | None | None | None | None | None | None | None | None | | | | | | | | |
| -004 | 0b1101100 | OTP | 38.88 | 0 | 27 | 40 | DIS | DIS | 1 Hz | 40 | 40 | 270 | 270 | 40 | 40 | 270 | 270 | Out | Out | Out | Out | Out | Out | Out | In |
| | | | | | | | | | | D/+/on | L/+/on | L/+/on | L/+/on | L/+/on | -/+/off | -/+/off | L/+/on | | | | | | | | |
| | I2C | 0b1010000 | | 1 | 27 | DIS | 270 | DIS | 1 Hz | PLL0 | PLL0 | PLL1 | PLL1 | PLL0 | PLL0 | PLL1 | PLL1 | LOL0 | HOLD0 | LOS0 | LOL1 | HOLD1 | LOS1 | LOS2 | GPI |
| | | 1-Byte | | | | | | | | None | None | None | None | None | None | None | None | | | | | | | | |
| -997 | 0b1101100 | EEPROM | 38.88 | 0 | DIS | DIS | DIS | DIS | 64 Hz | 155.52 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Out | In | In | In | In | In | In | In |
| | | | | | | | | | | P/+/on | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | | | | | | | | |
| | I2C | 0b1010000 | | 1 | DIS | DIS | DIS | DIS | 4 Hz | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | LOL0 | GPI | GPI | GPI | GPI | GPI | GPI | GPI |
| | | 1-Byte | | | | | | | | None | None | None | None | None | None | None | None | | | | | | | | |
| -998 | 0b1111100 | EEPROM | 38.88 | 0 | DIS | DIS | DIS | DIS | 64 Hz | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | In | In | In | In | In | In | In | In |
| | | | | | | | | | | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | | | | | | | | |
| | I2C | 0b1010000 | | 1 | DIS | DIS | DIS | DIS | 64 Hz | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | GPI | GPI | GPI | GPI | GPI | GPI | GPI | GPI |
| | | 1-Byte | | | | | | | | None | None | None | None | None | None | None | None | | | | | | | | |
| -999 | 0b1111100 | OTP | 38.88 | 0 | DIS | DIS | DIS | DIS | 64 Hz | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | In | In | In | In | In | In | In | In |
| | | | | | | | | | | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | P/+/off | | | | | | | | |
| | I2C | 0b1010000 | | 1 | DIS | DIS | DIS | DIS | 64 Hz | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | GPI | GPI | GPI | GPI | GPI | GPI | GPI | GPI |
| | | 1-Byte | | | | | | | | None | None | None | None | None | None | None | None | | | | | | | | |

# Default Configurations for Universal Frequency Translator Family of Devices

## Product Ordering Guide

### IDT8T49N283

| Code (ddd) | Serial Port Protocol / Device Address | Boot Method / EEPROM Addressing / Address | Crystal Frequency (MHz) | PLL | Input Frequency (MHz) by PLL (PLL0 / PLL1): CLK0 | CLK1 | Locked Loop Bandwidth (Hz) | Output Frequency (MHz) / Output Style (P = LVPECL, D=LVDS, CP = LVCMOS in-phase, CN = LVCMOS out-of-phase) Inversion (-) or non-inversion (+) Power-up State / Frequency Source / Phase Delay (steps): Q0 | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | GPIO Direction / GPIO Function (GPIO = General Purpose I/O, OE = Output Enable input, CSEL = Clock Select input, LOSn, LOLn, HOLDn = Alarm output): GPIO0 | GPIO1 | GPIO2 | GPIO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -002 | 0b1111100 | OTP | 25 | 0 | DIS | DIS | 64 Hz | 125 | 100 | 136.25 | 136.22 | 50 | 25 | 25 | 25 | Out | In | Out | Out |
| | | | | | | | | P/+/on | P/+/on | P/+/on | P/+/on | CN/+/on | L/+/on | CN/+/on | CN/+/on | | | | |
| | I2C | 0b1010000 | | 1 | 10 | DIS | 4 Hz | PLL0 | PLL0 | PLL1 | PLL1 | PLL0 | PLL0 | PLL0 | PLL0 | LOL0 | GPI | GPI | LOL1 |
| | | 1-Byte | | | | | | None | None | None | None | None | None | None | None | | | | |
| -004 | 0b1101100 | OTP | 10 | 0 | DIS | DIS | 64 Hz | 125 | 100 | 136.25 | 136.25 | 50 | 25 | 25 | 25 | Out | In | Out | Out |
| | | | | | | | | P/+/on | P/+/on | CN/+/on | P/+/on | CN/+/on | CN/+/off | CN/+/on | CN/+/on | | | | |
| | I2C | 0b1010000 | | 1 | DIS | DIS | 512 mHz | PLL0 | PLL0 | PLL1 | PLL1 | PLL0 | PLL0 | PLL0 | PLL0 | LOL0 | GPI | GPI | LOL1 |
| | | 1-Byte | | | | | | None | None | None | None | None | None | None | None | | | | |
| -005 | 0b1101100 | OTP | 10 | 0 | DIS | DIS | 64 Hz | 125 | 100 | 136.25 | 136.25 | 50 | 100 | 25 | 25 | Out | In | Out | Out |
| | | | | | | | | P/+/on | P/+/on | CN/+/on | P/+/on | CN/+/on | P/+/on | CN/+/on | CN/+/on | | | | |
| | I2C | 0b1010000 | | 1 | DIS | DIS | 512 mHz | PLL0 | PLL0 | PLL1 | PLL1 | PLL0 | PLL0 | PLL0 | PLL0 | LOL0 | GPI | GPI | LOL1 |
| | | 1-Byte | | | | | | None | None | None | None | None | None | None | None | | | | |
| -006 | 0b1101100 | OTP | 25 | 0 | DIS | DIS | 64 Hz | 125 | 100 | 156.25 | 312.5 | 125 | 25 | 26 | 26 | In | In | In | In |
| | | | | | | | | CN/+/on | CN/+/on | CN/+/on | D/+/on | D/+/on | CN/+/on | CN/+/on | CN/+/on | | | | |
| | I2C | 0b1010000 | | 1 | DIS | DIS | 64 Hz | PLL1 | PLL1 | PLL1 | PLL1 | PLL1 | PLL1 | PLL0 | PLL0 | GPI | GPI | GPI | GPI |
| | | 1-Byte | | | | | | None | None | None | None | None | None | None | None | | | | |
| -007 | 0b1101100 | Defaults | 40 | 0 | DIS | DIS | 64 Hz | 515.625 | N/A | 178.5 | 178.5 | 100 | 100 | 50 | 100 | In | In | In | In |
| | | | | | | | | P/+/on | P/+/on | L/+/on | L/+/on | P/+/on | P/+/on | L/+/on | L/+/on | | | | |
| | I2C | 0b1010000 | | 1 | DIS | DIS | 64 Hz | PLL1 | PLL1 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | GPI | GPI | GPI | GPI |
| | | 1-Byte | | | | | | None | None | None | None | None | None | None | None | | | | |
| -008 | 0b1101100 | EEPROM | 40 | 0 | DIS | DIS | 64 Hz | 515.625 | 515.625 | 178.5 | 178.5 | 100 | 100 | 50 | 100 | In | In | In | In |
| | | | | | | | | P/+/on | P/+/on | L/+/on | L/+/on | P/+/on | P/+/on | L/+/on | L/+/on | | | | |
| | I2C | 0b1010000 | | 1 | DIS | DIS | 64 Hz | PLL1 | PLL1 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | GPI | GPI | GPI | GPI |
| | | 1-Byte | | | | | | None | None | None | None | None | None | None | None | | | | |
| -998 | 0b1111100 | EEPROM | 38.88 | 0 | DIS | DIS | 64Hz | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | In | In | In | In |
| | | | | | | | | P/+/off | P/+/off | P/+/off | P/+/off | CN/+/off | P/+/off | P/+/off | P/+/off | | | | |
| | | 0b1010000 | | 1 | DIS | DIS | 64Hz | PLL0 | PLL1 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | OE | OE | OE | OE |
| | | 1-Byte | | | | | | None | None | None | None | None | None | None | None | | | | |
| -999 | 0b1111100 | Defaults | 38.88 | 0 | DIS | DIS | 64Hz | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | In | In | In | In |
| | | | | | | | | P/+/off | P/+/off | P/+/off | P/+/off | CN/+/off | P/+/off | P/+/off | P/+/off | | | | |
| | | 0b1010000 | | 1 | DIS | DIS | 64Hz | PLL0 | PLL1 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | PLL0 | OE | OE | OE | OE |
| | | - | | | | | | None | None | None | None | None | None | None | None | | | | |

### IDT8T49N366

| Code (ddd) | PLL | Mode | Input Frequency (MHz) | | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | | Output Frequency (MHz) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CLK0 | CLK1 | REF_IN | | | Q0 | Q1 | Q0 | Q1 |
| -000 | PLL-A | LoBW | 25 | 25 | 40 | Manual | Pin | D/off | D/off | 622.08 | 622.08 |
| | PLL-B | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 644.53125 | 644.53125 |
| | PLL-C | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 156.25 | 156.25 |
| -999 | PLL-A | LoBW | 25 | 25 | 40 | Manual | Pin | D/off | D/off | 622.08 | 622.08 |
| | PLL-B | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 644.53125 | 644.53125 |
| | PLL-C | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 156.25 | 156.25 |

| IDT8T49N445 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Code (ddd) | PLL | Mode | Input Frequency (MHz) | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | Output Frequency (MHz) |
| | | | CLK | REF_IN | | | Q | Q |
| -000 | PLL-A | LoBW | 38.88 | 40 | Manual | Pin | D/off | 622.08 |
| | PLL-B | LoBW | 19.44 | 40 | Manual | Pin | D/off | 531.25 |
| | PLL-C | LoBW | 40 | 40 | Manual | Pin | D/off | 167.331645 |
| | PLL-D | LoBW | 25 | 40 | Manual | Pin | D/off | 164.3554688 |
| -999 | PLL-A | LoBW | 38.88 | 40 | Manual | Pin | D/off | 622.08 |
| | PLL-B | LoBW | 19.44 | 40 | Manual | Pin | D/off | 531.25 |
| | PLL-C | LoBW | 40 | 40 | Manual | Pin | D/off | 167.331645 |
| | PLL-D | LoBW | 38.88 | 40 | Manual | Pin | D/off | 622.08 |

| IDT8T49N488 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code (ddd) | PLL | Mode | Input Frequency (MHz) | | | Switchover Type | Switchover Mode | Output Style / Power-up State P = LVPECL, D = LVDS | | Output Frequency (MHz) | |
| | | | CLK0 | CLK1 | REF_IN | | | Q0 | Q1 | Q0 | Q1 |
| -000 | PLL-A | LoBW | 25 | 25 | 40 | Manual | Pin | D/off | D/off | 622.08 | 622.08 |
| | PLL-B | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 644.53125 | 644.53125 |
| | PLL-C | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 156.25 | 156.25 |
| | PLL-D | LoBW | 25 | 25 | 40 | Manual | Pin | D/off | D/off | 161.1328125 | 161.1328125 |
| -999 | PLL-A | LoBW | 25 | 25 | 40 | Manual | Pin | D/off | D/off | 622.08 | 622.08 |
| | PLL-B | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 644.53125 | 644.53125 |
| | PLL-C | LoBW | 19.44 | 19.44 | 40 | Manual | Pin | D/off | D/off | 156.25 | 156.25 |
| | PLL-D | LoBW | 25 | 25 | 40 | Manual | Pin | D/off | D/off | 161.1328125 | 161.1328125 |

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