Infineon Power for Versal Prime VM1802 UC4 + System Voltages

XILINX VERSAL PRIME, VM1802

IR35215 Loop1, Loop2 — **TDA21472** ×2 — 1 — 0.7/0.78//0.88V - 40A to 80A+

TDA21472 — 2 — 1.2V / 20A+ for DDR

IR38060 — 12 — 0.88V / 3.08A

IR3823 - 3A (used on ZCU-104)
IR38060 - 6A (used on UltraZED and ZCU-111)

IRPS5401 (power stage <10A, **TDA21242**)
- Ch A — 3 — 0.78/0.88V - 4.72A
- Ch B — 4 — 1.5V - 0.16A
- Ch C — 5 — 0.78/0.88V - 2.15A
- Ch D — 6 — 1.5V / 3.72A
- LDO — 7 — open - 0.5A

IRPS5401 used on UltraZED, Ultra96 ZCU-104; ZCU-111

IRPS5401
- Ch A — 8 — 0.78/0.88V - 0.64A
- Ch B — 9 — 0.78/0.88V - 0.3A
- Ch C — 10 — 1.2V / 8A (4.81A)**
- Ch D
- LDO — 11 — 1.5V / 0.29A

* **Xilinx expects slight increase in VTT current

IR3883 — 13* — VCCO_PMIO (0:n)

IR3883 — 14* — VCCO_PMIO (0:n), VREFP

IR3897 — 15 — 0.6V / +/-3A

IR3899 - 9A
IR3898 - 6A
IR3897 - 4A

1.2V / 20A+ → **DDR3/DDR4** (VTT = VDDQ/2, VDD)

VERSAL

PL & AI ENGINE
- VCCINT — 0.7/0.78/0.88
- VCCAUX — 1.5V
- VCC_SOC — 0.7/0.78/0.88
- VCCBRAM — 0.7/0.78/0.88
- VCCINT_IO — 0.7/0.78/0.88
- VCCO (HDIO) — 1.1-3.3V
- VCCO (HPIO) — 1-1.8V
- VMGTAVCC — 0.88V
- VMGTAVCCAUX — 1.5V
- VMGTAVTT — 1.2V

PS Scalar Engine
- VCC_PSINTLP — 0.7/0.78/0.88
- VCC_PSINTFP — 0.7/0.78/0.88
- VCCO_PMIO (0:n) — 1.2- 3.3V other

PMC
- VCC_PMC — 0.7/0.78/0.88
- VCCAUX_PMC — 1.5V
- VCCAUX_SMON — 1.5V
- VCCO_PMIO (0:n) — 1.2- 3.3V
- VREFP — 1.024V

*Rails 13 and 14 are optional. If 5V and 3.3V system rails needed, then can combine these with rails 13 and 14 with an additional IRPS5401

IRPS5401 (power stage <10A, **TDA21242**)
- Ch A — 16 — 3.3V - 10A+ system voltages
- Ch B — 17 — 2.5V - 1A to 2A
- Ch C — 18 — 1.13V - 1A+ ethernet
- Ch D — 19 — 5V / 2A+ system voltage
- LDO — 20 — open - 0.5A