

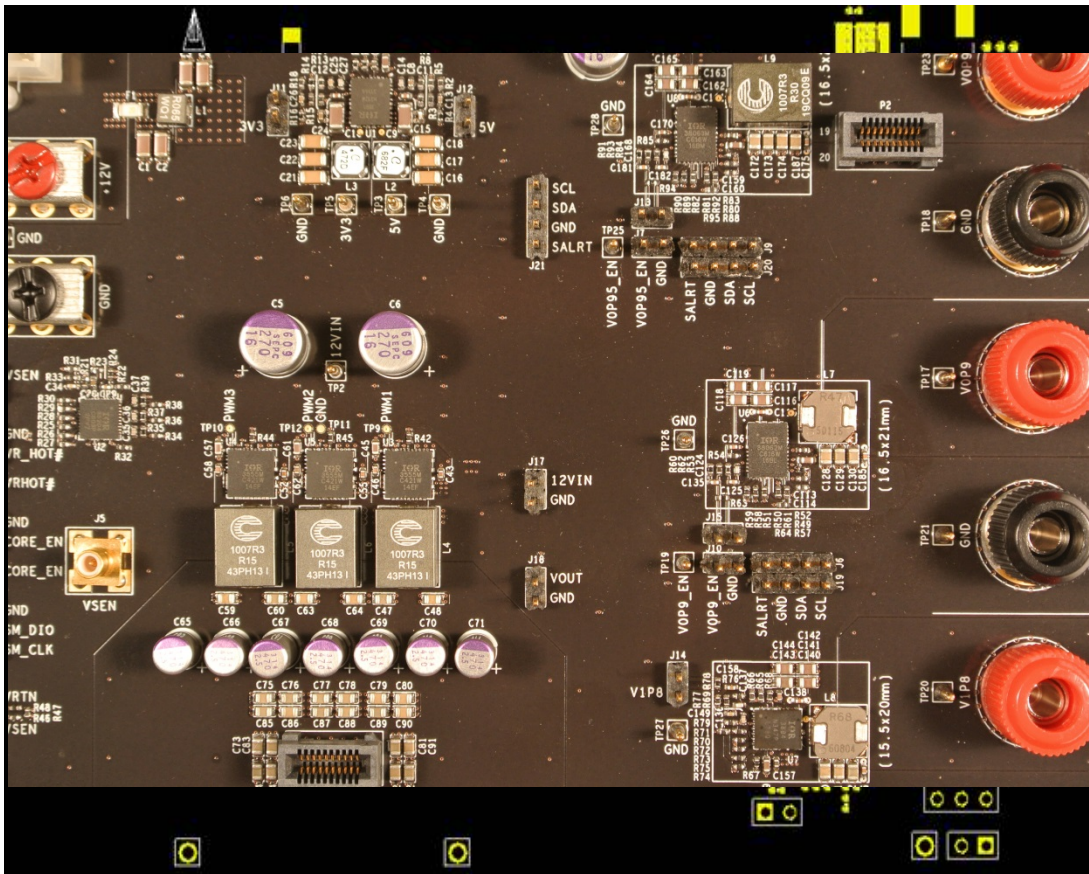
Infineon:

Arria 10 – 160W – 50W

EVAL_35204-PMAC1 Coming Soon.

www.infineon.com/altera





PowIRStage	L (nH)	Fsw (kHz)	2-phase (A)	3-phase (A)
IR3555	150	500	60	90
IR3556	175	500	45	67.5
IR3557	215	500	30	45

READY TO GO DESIGNS

IR35204 + Power Stages

- ☐ Scalable multi-phase controller (Salem)
- ☐ PMBus/I2C
- ☐ VID capability Macro designs available

Set designs:

3-phase: > 90A, 65A, < 45A
2-phase: >50A, 35A

IR38063/62 - 25A /15A

Integrated FET PMBus POL

- ☐ Delivers excellent efficient at best thermal ratings
- ☐ High DC accuracy <1%
- ☐ PMBus capability
- ☐ Proven low noise SERDES solution

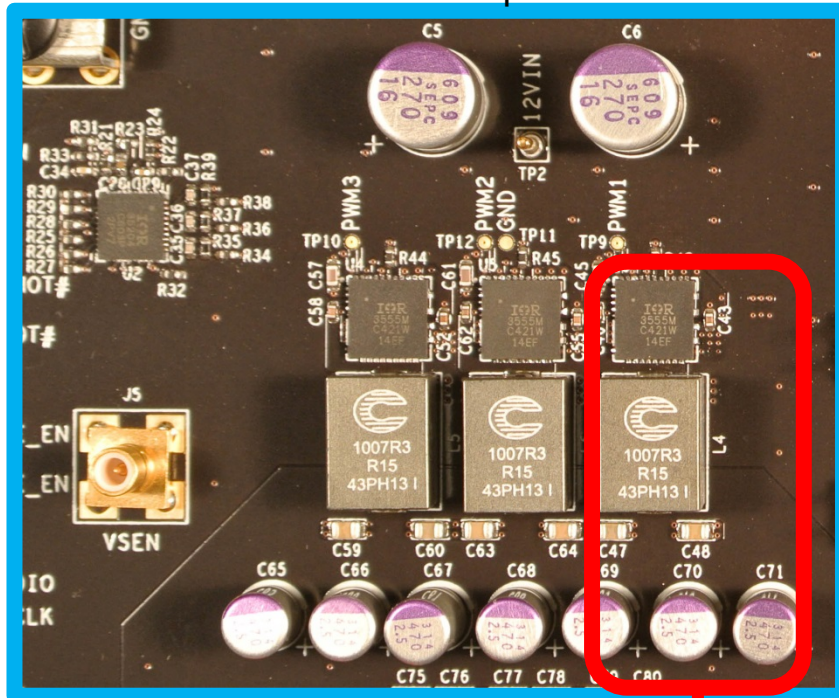
Example 3-phase Core Rail to 90A + POL

Arria 10 / Stratix X or Virtex/Kintex --- 3-phase / 2-phase Power Macro

3-phase Scalable **45A to 90A** Core Rail

0.95V +/-30mV

VID and PMBus Options



50mm

IR35205 +
IR355x

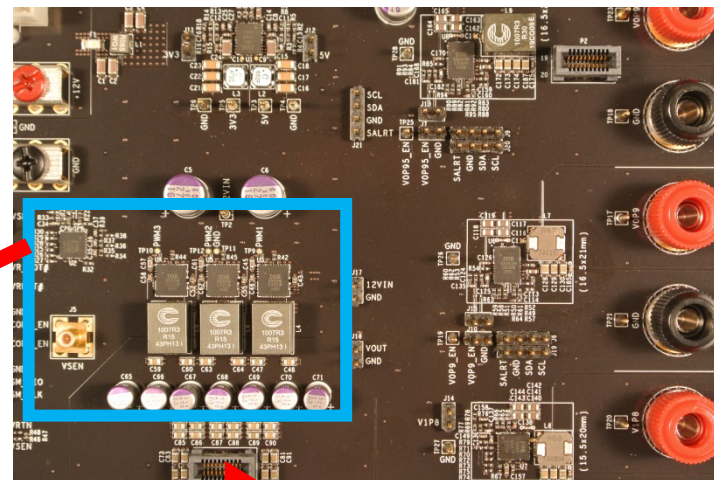
40mm

Option
remove

2-phase 30-45A Core Rail

0.95V +/-30mV

VID and PMBus Options



DETAIL

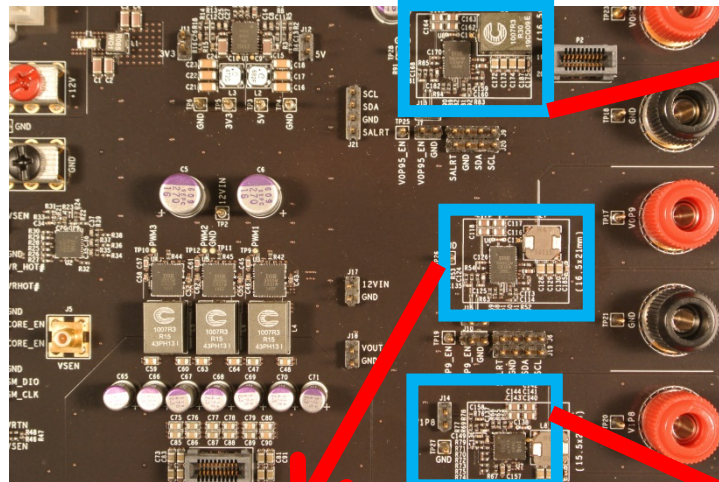
Includes Mini-Slammer
to test transient loads

Optional designs with SMT inductors and capacitors

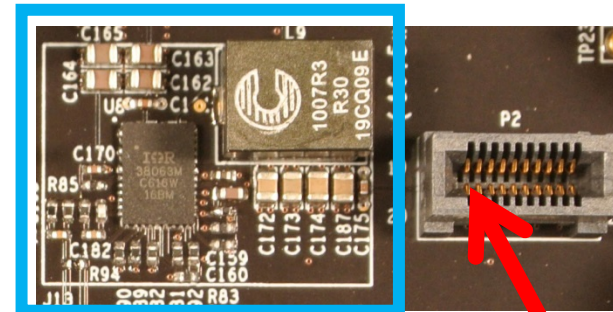
Example VCCERAM, SERDES, Bus I/O Rails

Arria 10 / Stratix X or Virtex/Kintex

DETAIL



VCCERAM 15A PMBus
0.90V +/-30mV

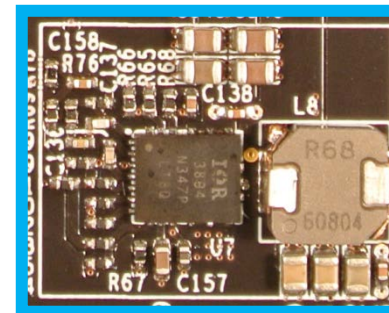


16 mm

IR38062 22 mm

Includes Mini-Slammer
to test transient loads

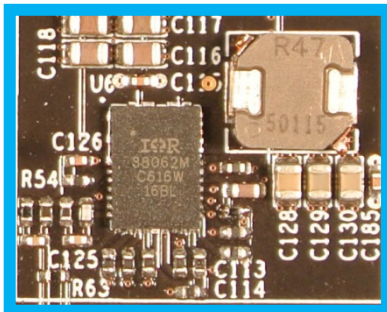
VCCT_GXB, VCCR_GXB SERDES
25A PMBus
0.95V +/-30mV, <10mV pp ripple



15 mm

IR38063 20 mm

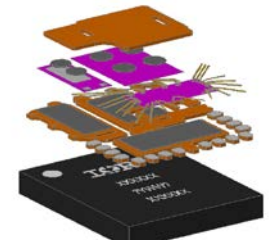
VCCIO 1.8V 12A Bus I/O, Platform



15 mm

IR3894 20 mm

Excellent over
temperature



New Thermal
Enhanced
Package with
Cu clip

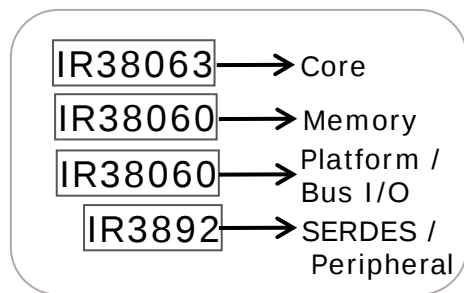
FAE Primer

Customers refer this as “66” family
Or “660” k-logic gates



Altera Arria 10

Product Line	GX480 / SX480	GX570 / SX570	GX660 / SX660	GX900	GX1150
Ref #	10AX48 / 10AS48	10AX570 / 10AS570	10AX66 / 10AS66	10AX900	10AX115



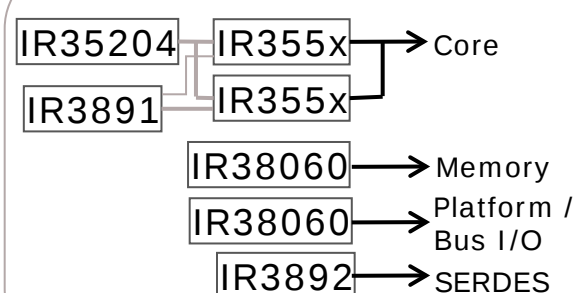
40W to 50W

Ref Design / Evals:

EVAL_38060-PMAC1
IRDC38063,
IRDC38060, IRDC3892

Alternative Devices:

Analog SupIRBucks
IR3883, IR3823, IR3897
IR3847, IR3846, IR3448, IR3891
LDO
IFX1763 (3.3V, 1.2V, 1.5V, 1.35V)
TLS208D1LDV (1.2V, 1.0V)



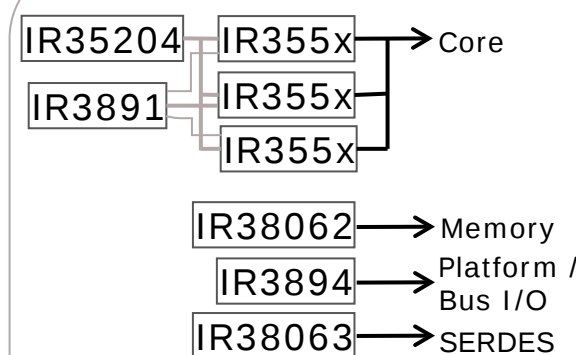
55W to 90W

Ref Design / Evals:

EVAL_35204-PMAC– Core Rail
EVAL_38060-PMAC1
– Other POL rails
IRDC38060, IRDC3892

Alternative Devices:

Analog SupIRBucks
IR3883, IR3823, IR3897, IR3891
LDO
IFX1763 (3.3V, 1.2V, 1.5V, 1.35V)
TLS208D1LDV (1.2V, 1.0V)



100W to 160W

Ref Design / Evals:

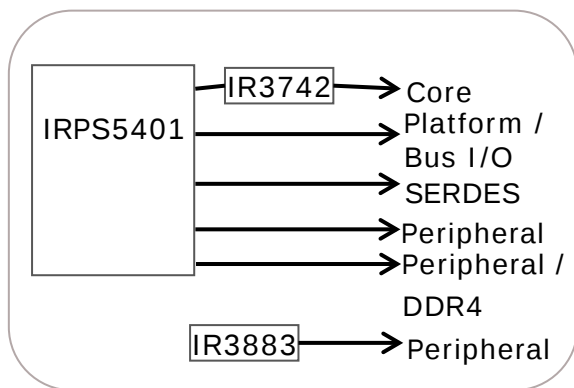
EVAL_35204-PMAC– Core + POL
IRDC38062, IRDC3891

Alternative Devices:

Analog SupIRBucks
IR3883, IR3823, IR3897
IR3847, IR3846, IR3448, IR3891
LDO
IFX1763 (3.3V, 1.2V, 1.5V, 1.35V)
TLS208D1LDV (1.2V, 1.0V)

Altera Arria 10

Product Line	GX160 / SX160	GX220 / SX220	GX270 / SX270	GX320 / SX320	GX480 / SX480
Ref #	10AX16 / 10AS16	10AX22 / 10AS22	10AX27 / 10AS27	10AX32 / 10AS32	10AX48 / 10AS48



20W to 25W

Ref Design / Evals:

Schematics available

DB296 – IRPS5401

IRDC3883

Alternative Devices:

SupIRBucks: IR3883, IR3823, IR3898

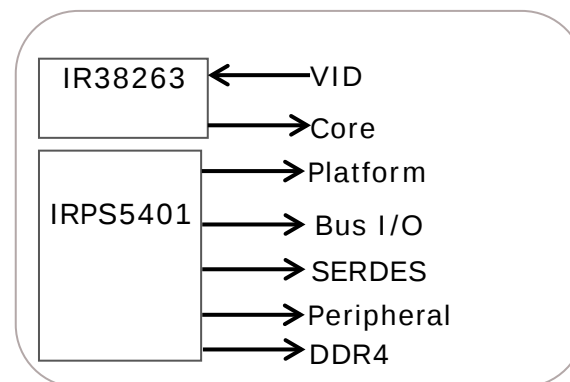
IR3847, IR3846, IR3891

PMBus: IR38063, IR38062

LDO

IFX1763 (3.3V, 1.2V, 1.5V, 1.35V)

TLS208D1LDV (1.2V, 1.0V)



30W to 40W

Ref Design / Evals:

DB295 – IRPS5401

IRDC38263 (tba)

Alternative Devices:

SupIRBucks: IR3883, IR3823, IR3898

IR3847, IR3846

PMBus: IR38063, IR38062

LDO

IFX1763 (3.3V, 1.2V, 1.5V, 1.35V)

TLS208D1LDV (1.2V, 1.0V)