

600 W halfbridge LLC evaluation board

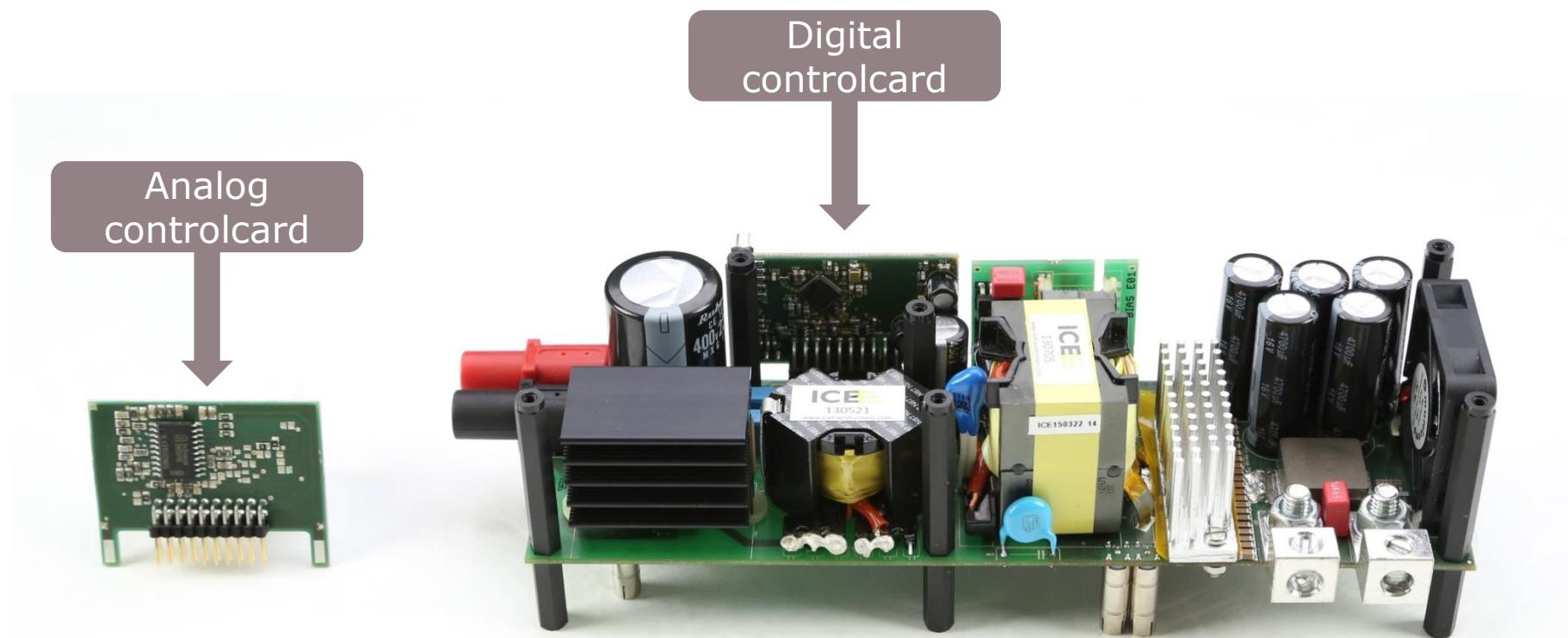
EVAL 12 V 600 W LLC digital

EVAL 12 V 600 W LLC analog

Di Domenico Francesco (IFAT PMM ACDC AE)

Zechner Florian (IFAT PMM ACDC AE)

600W_12V_LLC evaluation board



Control board analog & digital

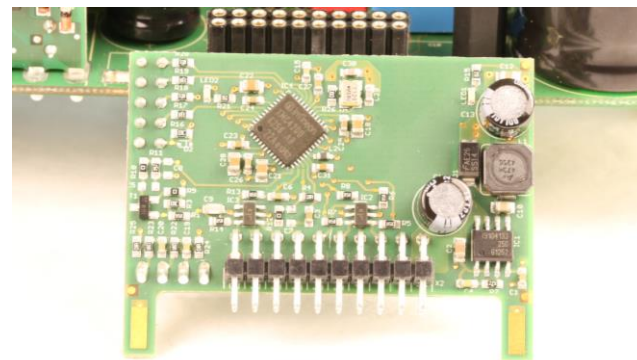
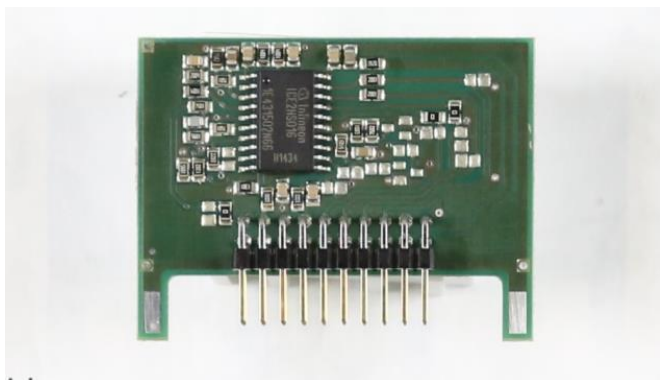
Two possible solution to control Infineon`s 600 W LLC evaluation board

Analog - ICE2HS01G

- › Resonant mode controller for Half-Bridge LLC resonant converter with synchronous rectification drives
- › Driving signal for synchronous rectification which support full operation of Half-Bridge LLC resonant converter
- › 20-pin DSO package
- › 30 kHz to 1MHz switching frequency
- › 50% duty cycle for both primary and secondary gate drives
- › Adjustable dead time with high accuracy

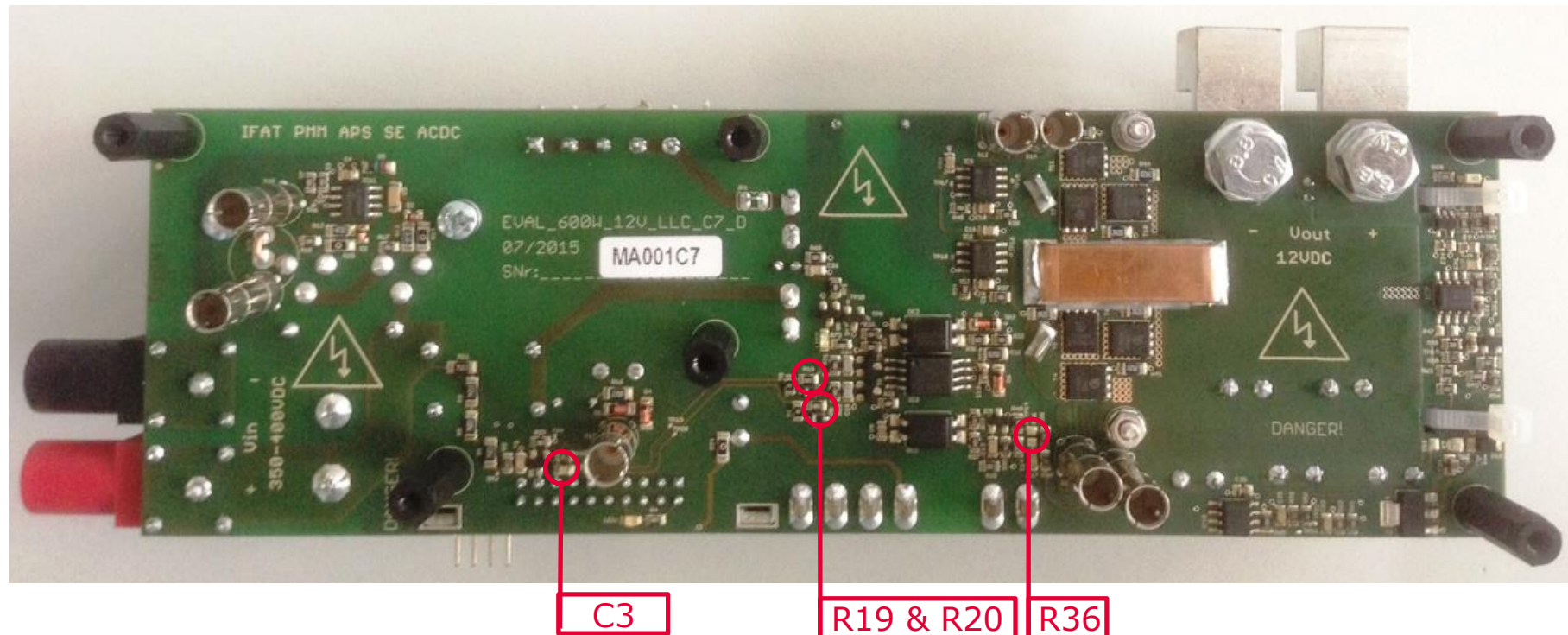
Digital - XMC4200-Q48K256 AB

- › ARM® Cortex®-M4, 80 MHz, incl. single cycle DSP MAC and floating point unit (FPU)
- › 8-channel DMA + dedicated DMA for USB
- › USB 2.0 full-speed device
- › CPU Frequency: 80 MHz
- › eFlash: 256 kB including hardware ECC
- › 40 kB SRAM
- › Package: PG-LQFP-48

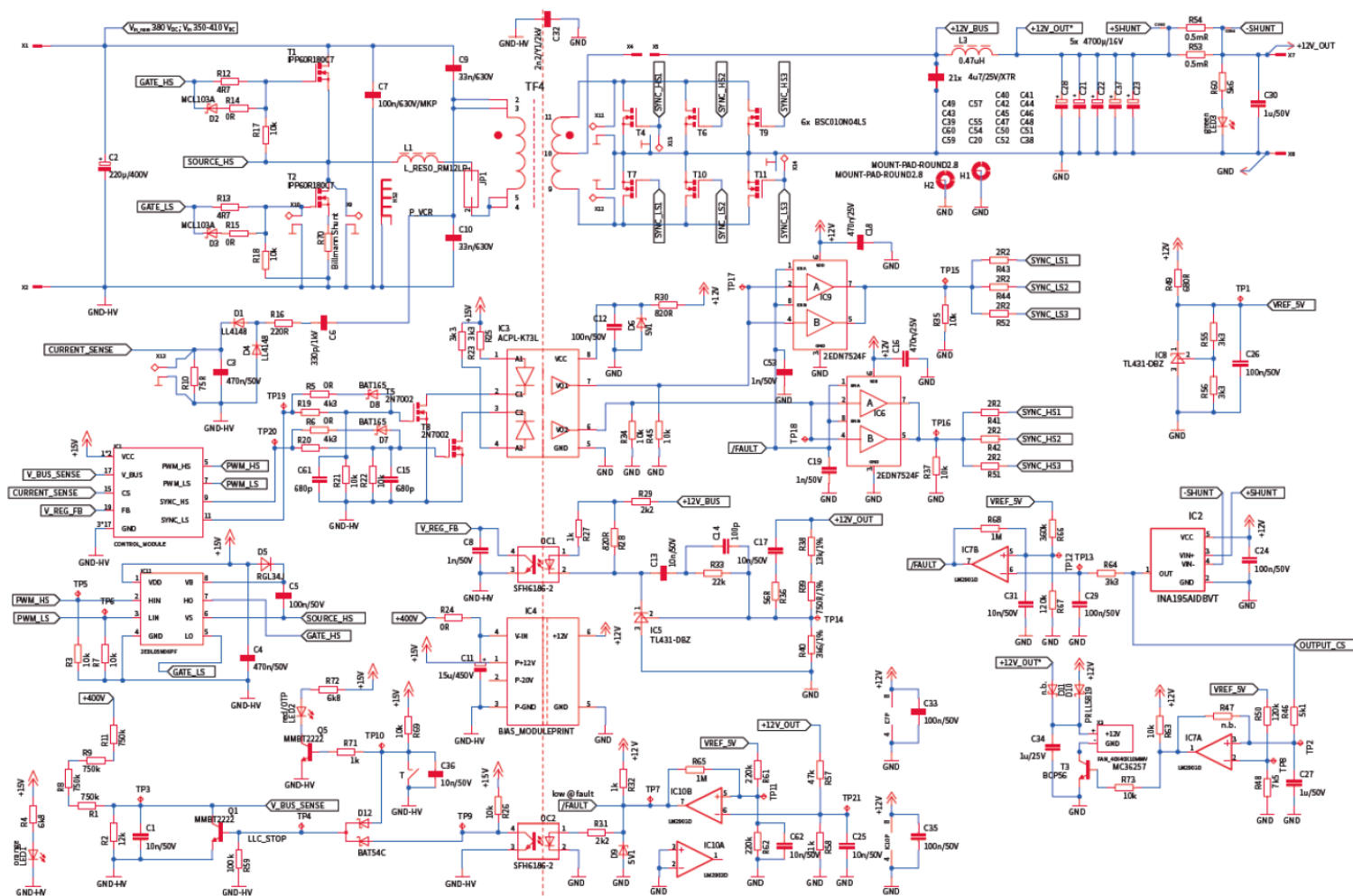


BOM (rework from digital to analog)

Part	Value	Pcs	Tolerance	Device	Package	Description	Assembling info	Supplier
C3	470n/50V	1		C-EU_C0805	C0805	CAPACITOR	Replace 10n/50V with 470n/50V	
R19	4K3	1	±1%	R-EU_R0805	R0805	RESISTOR	Replace 330R with 4K3	
R20	4K3	1	±1%	R-EU_R0805	R0805	RESISTOR	Replace 330R with 4K3	
R36	56R	1	±1%	R-EU_R0805	R0805	RESISTOR	Assemble n.a. with 56R	
IC1	Board	1		Board	PCB	Analog_Controlcard		IFX



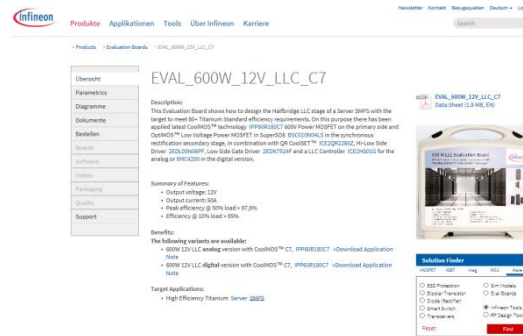
Schematic EVAL_600W_12V_LLC_C7 analog



Support slides 600 W LLC evaluation board

Evaluation board page

- Technical description
- Datasheets
- Parameters
- Related material
- Videos



- [EVAL 600 W 12 V LLC C7](#)

Product family pages

- Product brief
- Application notes
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- Datasheets and portfolio
- Videos
- Simulation models



- [650 V CoolMOS™ C7](#)
- [XMC 32-Bit Industrial Microcontroller](#)
- [Resonant Mode Controller](#)
- [OptiMOS™ 5 40 V and 60 V](#)



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