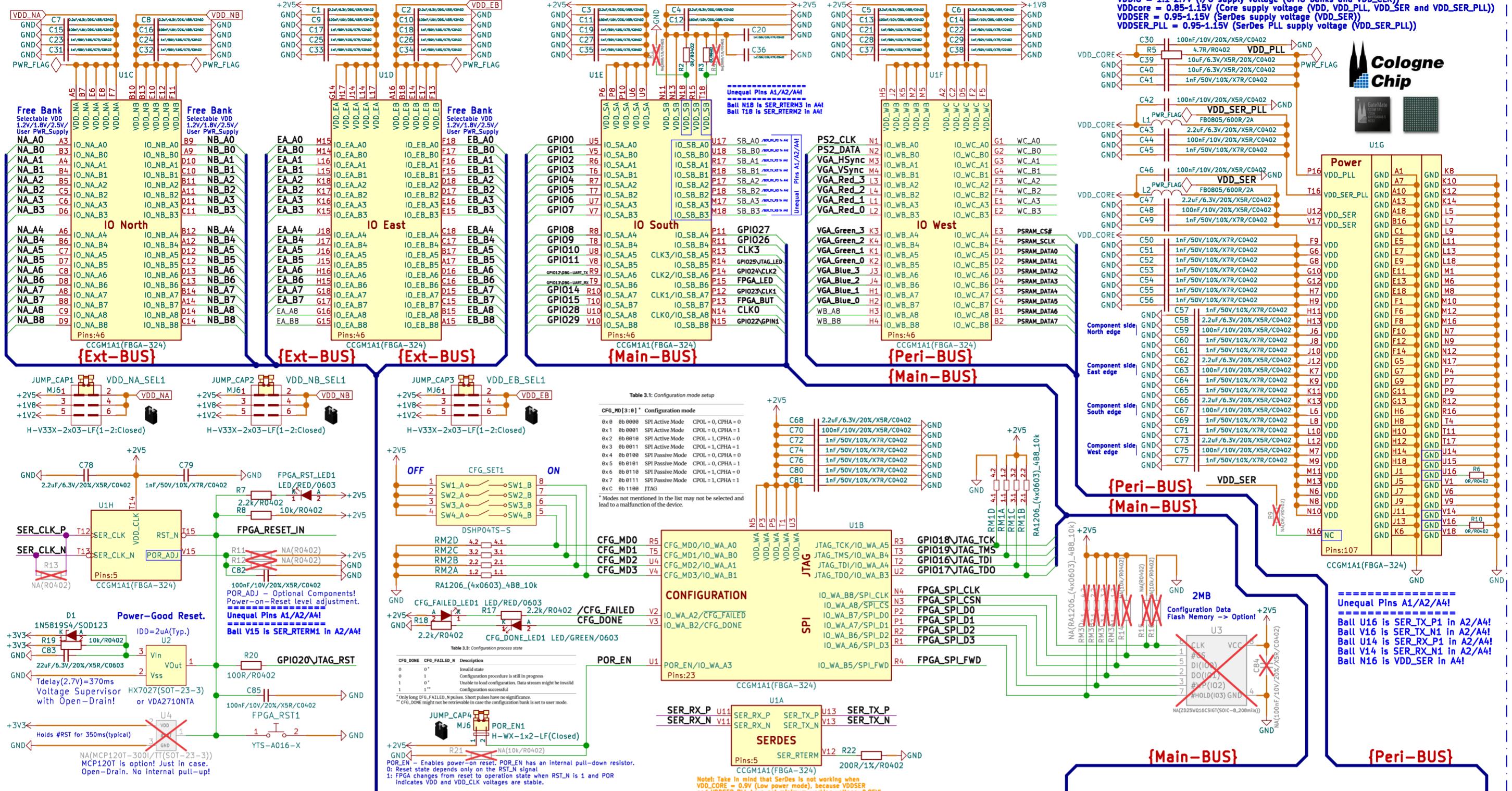
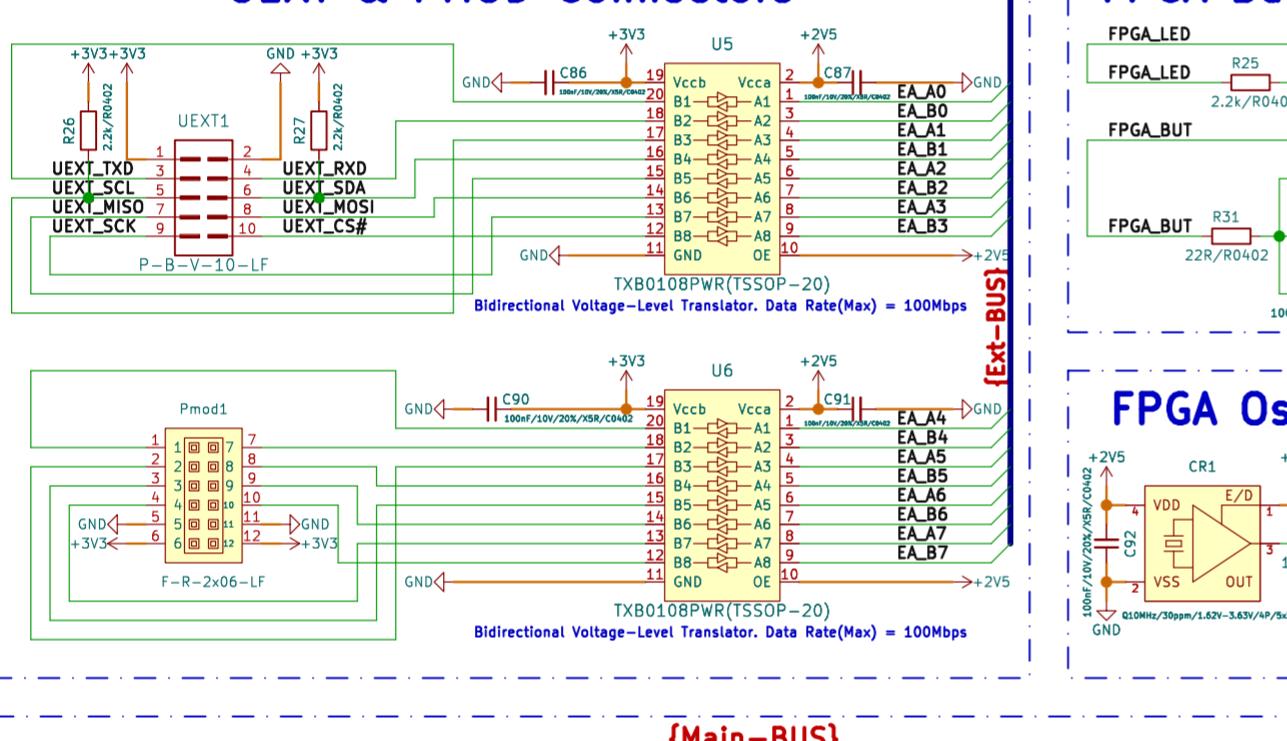


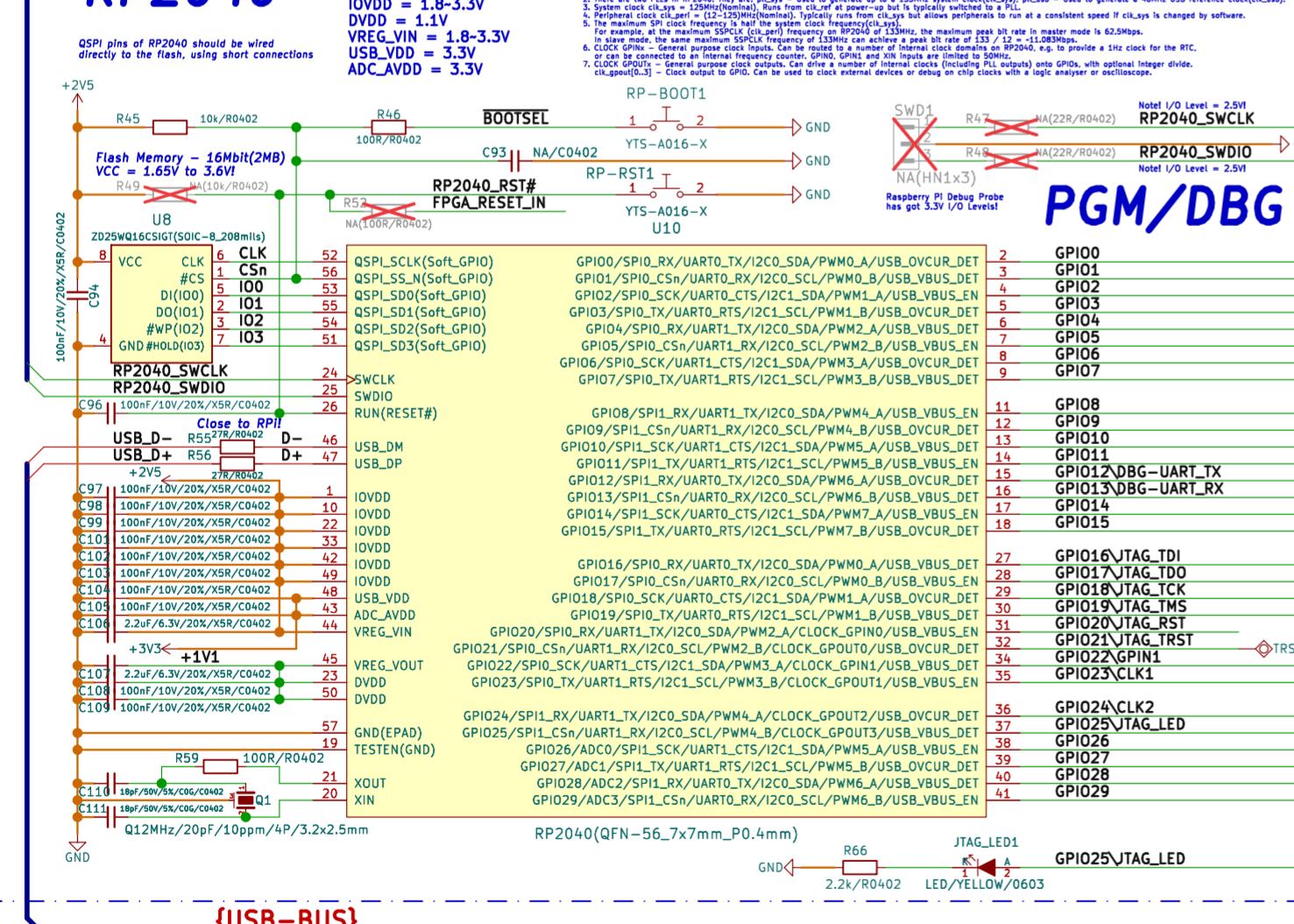
# Cologne Chip GateMate FPGA – CCGM1A1(20,480 CPEs), CCGM1A2(40,960 CPEs) or CCGM1A4(81,920 CPEs)



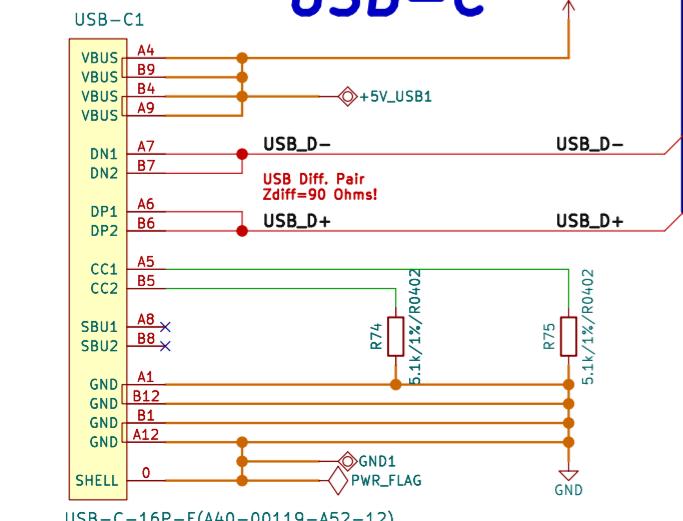
## UEXT & PMOD Connectors



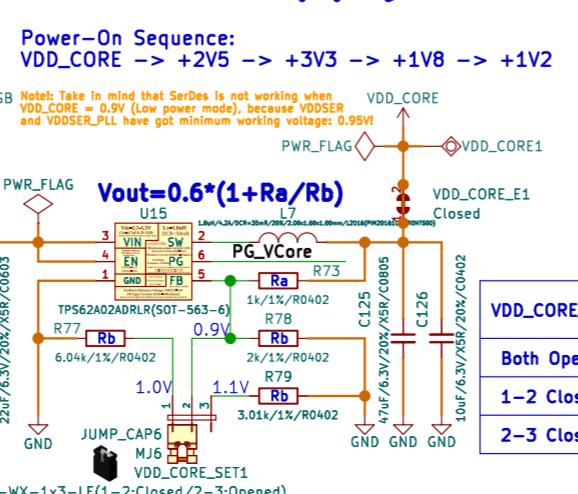
## RP2040



## USB-C



## Power Supply



## CCGM1A1 Characteristics

	VDDIO = 1.1-2.7V (I/O supply voltage (GPIO bank, VDD_CORE, and VDD_CLK))
VDDCore	0.85-1.1V (Core supply voltage (VDD_CORE, VDD_SER, and VDD_CORE1))
VDDSER	0.95-1.15V (SERDES supply voltage (VDD_SER))
VDDSER_PLL	1.05-1.15V (SerDes PLL supply voltage (VDD_SER_PLL))
VDD_CORE	100mV/10V/20%/ $\sqrt{X}$ /R/C042
C30	1.7V/7.9%/R043
C39	10uf/6.3V/20%/ $\sqrt{X}$ /R/C042
C40	10uf/6.3V/20%/ $\sqrt{X}$ /R/C042
C41	1m/9V/10%/ $\sqrt{X}$ /R/C042
PWR_FLAG	
VDD_CORE	100mV/10V/20%/ $\sqrt{X}$ /R/C042
C18	1.0V/6.3V/20%/ $\sqrt{X}$ /R/C042
C19	1.0V/6.3V/20%/ $\sqrt{X}$ /R/C042
C20	1.05V/10%/ $\sqrt{X}$ /R/C042
C21	1.05V/10%/ $\sqrt{X}$ /R/C042
C22	1.05V/10%/ $\sqrt{X}$ /R/C042
C23	1.05V/10%/ $\sqrt{X}$ /R/C042
C24	1.05V/10%/ $\sqrt{X}$ /R/C042
C25	1.05V/10%/ $\sqrt{X}$ /R/C042
C26	1.05V/10%/ $\sqrt{X}$ /R/C042
C27	1.05V/10%/ $\sqrt{X}$ /R/C042
C28	1.05V/10%/ $\sqrt{X}$ /R/C042
C29	1.05V/10%/ $\sqrt{X}$ /R/C042
C30	1.05V/10%/ $\sqrt{X}$ /R/C042
C31	1.05V/10%/ $\sqrt{X}$ /R/C042
C32	1.05V/10%/ $\sqrt{X}$ /R/C042
C33	1.05V/10%/ $\sqrt{X}$ /R/C042
PWR_FLAG	
VDD_CORE	100mV/10V/20%/ $\sqrt{X}$ /R/C042
C34	1.05V/10%/ $\sqrt{X}$ /R/C042
C35	1.05V/10%/ $\sqrt{X}$ /R/C042
C36	1.05V/10%/ $\sqrt{X}$ /R/C042
C37	1.05V/10%/ $\sqrt{X}$ /R/C042
PWR_FLAG	
VDD_CORE	100mV/10V/20%/ $\sqrt{X}$ /R/C042
C38	1.05V/10%/ $\sqrt{X}$ /R/C042
C39	1.05V/10%/ $\sqrt{X}$ /R/C042
C40	1.05V/10%/ $\sqrt{X}$ /R/C042
C41	1.05V/10%/ $\sqrt{X}$ /R/C042
PWR_FLAG	
VDD_CORE	100mV/10V/20%/ $\sqrt{X}$ /R/C042
C42	1.05V/10%/ $\sqrt{X}$ /R/C042
C43	1.05V/10%/ $\sqrt{X}$ /R/C042
C44	1.05V/10%/ $\sqrt{X}$ /R/C042
C45	1.05V/10%/ $\sqrt{X}$ /R/C042
PWR_FLAG	
VDD_CORE	100mV/10V/20%/ $\sqrt{X}$ /R/C042
C46	1.05V/10%/ $\sqrt{X}$ /R/C042
C47	1.05V/10%/ $\sqrt{X}$ /R/C042
C48	1.05V/10%/ $\sqrt{X}$ /R/C042
C49	1.05V/10%/ $\sqrt{X}$ /R/C042
PWR_FLAG	
VDD_CORE	100mV/10V/20%/ $\sqrt{X}$ /R/C042
C50	1.05V/10%/ $\sqrt{X}$ /R/C042
C51	1.05V/10%/ $\sqrt{X}$ /R/C042
C52	1.05V/10%/ $\sqrt{X}$ /R/C042
C53	1.05V/10%/ $\sqrt{X}$ /R/C042
C54	1.05V/10%/ $\sqrt{X}$ /R/C042
C55	1.05V/10%/ $\sqrt{X}$ /R/C042
C56	1.05V/10%/ $\sqrt{X}$ /R/C042
PWR_FLAG	
VDD_CORE	100mV/10V/20%/ $\sqrt{X}$ /R/C042
C57	1.05V/10%/ $\sqrt{X}$ /R/C042
C58	1.05V/10%/ $\sqrt{X}$ /R/C042
C59	1.05V/10%/ $\sqrt{X}$ /R/C042
C60	1.05V/10%/ $\sqrt{X}$ /R/C042
C61	1.05V/10%/ $\sqrt{X}$ /R/C042
C62	1.05V/10%/ $\sqrt{X}$ /R/C042
C63	1.05V/10%/ $\sqrt{X}$ /R/C042
C64	1.05V/10%/ $\sqrt{X}$ /R/C042
C65	1.05V/10%/ $\sqrt{X}$ /R/C042
C66	1.05V/10%/ $\sqrt{X}$ /R/C042
C67	1.05V/10%/ $\sqrt{X}$ /R/C042
C68	1.05V/10%/ $\sqrt{X}$ /R/C042
C69	1.05V/10%/ $\sqrt{X}$ /R/C042
C70	1.05V/10%/ $\sqrt{X}$ /R/C042
C71	1.05V/10%/ $\sqrt{X}$ /R/C042
C72	1.05V/10%/ $\sqrt{X}$ /R/C042
C73	1.05V/10%/ $\sqrt{X}$ /R/C042
C74	1.05V/10%/ $\sqrt{X}$ /R/C042
C75	1.05V/10%/ $\sqrt{X}$ /R/C042
C76	1.05V/10%/ $\sqrt{X}$ /R/C042
C77	1.05V/10%/ $\sqrt{X}$ /R/C042
C78	1.05V/10%/ $\sqrt{X}$ /R/C042
C79	1.05V/10%/ $\sqrt{X}$ /R/C042
PWR_FLAG	
VDD_CORE	100mV/10V/20%/ $\sqrt{X}$ /R/C042
C80	1.05V/10%/ $\sqrt{X}$ /R/C042
C81	1.05V/10%/ $\sqrt{X}$ /R/C042
C82	1.05V/10%/ $\sqrt{X}$ /R/C042
C83	1.05V/10%/ $\sqrt{X}$ /R/C042
C84	1.05V/10%/ $\sqrt{X}$ /R/C042
C85	1.05V/10%/ $\sqrt{X}$ /R/C042
C86	1.05V/10%/ $\sqrt{X}$ /R/C042
C87	1.05V/10%/ $\sqrt{X}$ /R/C042
C88	1.05V/10%/ $\sqrt{X}$ /R/C042
C89	1.05V/10%/ $\sqrt{X}$ /R/C042
C90	1.05V/10%/ $\sqrt{X}$ /R/C042
C91	1.05V/10%/ $\sqrt{X}$ /R/C042
C92	1.05V/10%/ $\sqrt{X}$ /R/C042
C93	1.05V/10%/ $\sqrt{X}$ /R/C042
C94	1.05V/10%/ $\sqrt{X}$ /R/C042
C95	1.05V/10%/ $\sqrt{X}$ /R/C042
C96	1.05V/10%/ $\sqrt{X}$ /R/C042
C97	1.05V/10%/ $\sqrt{X}$ /R/C042
C98	1.05V/10%/ $\sqrt{X}$ /R/C042
C99	1.05V/10%/ $\sqrt{X}$ /R/C042
C100	1.05V/10%/ $\sqrt{X}$ /R/C042
C101	1.05V/10%/ $\sqrt{X}$ /R/C042
C102	1.05V/10%/ $\sqrt{X}$ /R/C042
C103	1.05V/10%/ $\sqrt{X}$ /R/C042
C104	1.05V/10%/ $\sqrt{X}$ /R/C042
C105	1.05V/10%/ $\sqrt{X}$ /R/C042
C106	1.05V/10%/ $\sqrt{X}$ /R/C042
C107	1.05V/10%/ $\sqrt{X}$ /R/C042
C108	1.05V/10%/ $\sqrt{X}$ /R/C042
C109	1.05V/10%/ $\sqrt{X}$ /R/C042
C110	1.05V/10%/ $\sqrt{X}$ /R/C042
C111	1.05V/10%/ $\sqrt{X}$ /R/C042
C112	1.05V/10%/ $\sqrt{X}$ /R/C042
C113	1.05V/10%/ $\sqrt{X}$ /R/C042
C114	1.05V/10%/ $\sqrt{X}$ /R/C042
C115	1.05V/10%/ $\sqrt{X}$ /R/C042
C116	1.05V/10%/ $\sqrt{X}$ /R/C042
C117	1.05V/10%/ $\sqrt{X}$ /R/C042
C118	1.05V/10%/ $\sqrt{X}$ /R/C042
C119	1.05V/10%/ $\sqrt{X}$ /R/C042
C120	1.05V/10%/ $\sqrt{X}$ /R/C042
C121	1.05V/10%/ $\sqrt{X}$ /R/C042
C122	1.05V/10%/ $\sqrt{X}$ /R/C042
C123	1.05V/10%/ $\sqrt{X}$ /R/C042
C124	1.05V/10%/ $\sqrt{X}$ /R/C042
C125	1.05V/10%/ $\sqrt{X}$ /R/C042
C126	1.05V/10%/ $\sqrt{X}$ /R/C042
C127	1.05V/10%/ $\sqrt{X}$ /R/C042
C128	1.05V/10%/ $\sqrt{X}$ /R/C042
C129	1.05V/10%/ $\sqrt{X}$ /R/C042
C130	1.05V/10%/ $\sqrt{X}$ /R/C042
C131	1.05V/10%/ $\sqrt{X}$ /R/C042
C132	1.05V/10%/ $\sqrt{X}$ /R/C042
C133	1.05V/10%/ $\sqrt{X}$ /R/C042
C134	1.05V/10%/ $\sqrt{X}$ /R/C042
C135	1.05V/10%/ $\sqrt{X}$ /R/C042
C136	1.05V/10%/ $\sqrt{X}$ /R/C042
C137	1.05V/10%/ $\sqrt{X}$ /R/C042
C138	1.05V/10%/ $\sqrt{X}$ /R/C042
C139	1.05V/10%/ $\sqrt{X}$ /R/C042
C140	1.05V/10%/ $\sqrt{X}$ /R/C042
C141	1.05V/10%/ $\sqrt{X}$ /R/C042
C142	1.05V/10%/ $\sqrt{X}$ /R/C042
C143	1.05V/10%/ $\sqrt{X}$ /R/C042
C144	1.05V/10%/ $\sqrt{X}$ /R/C042
C145	1.05V/10%/ $\sqrt{X}$ /R/C042
C146	1.05V/10%/ $\sqrt{X}$ /R/C042
C147	1.05V/10%/ $\sqrt{X}$ /R/C042
C148	1.05V/10%/ $\sqrt{X}$ /R/C042
C149	1.05V/10%/ $\sqrt{X}$ /R/C042
C150	1.05V/10%/ $\sqrt{X}$ /R/C042
C151	1.05V/10%/ $\sqrt{X}$ /R/C042
C152	1.05V/10%/ $\sqrt{X}$ /R/C042
C153	1.05V/10%/ $\sqrt{X}$ /R/C042
C154	1.05V/10%/ $\sqrt{X}$ /R/C042
C155	1.05V/10%/ $\sqrt{X}$ /R/C042
C156	1.05V/10%/ $\sqrt{X}$ /R/C042
C157	1.05V/10%/ $\sqrt{X}$ /R/C042
C158	1.05V/10%/ $\sqrt{X}$ /R/C042
C159	1.05V/10%/ $\sqrt{X}$ /R/C042
C160	1.05V/10%/ $\sqrt{X}$ /R/C042
C161	1.05V/10%/ $\sqrt{X}$ /R/C042
C162	