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Technical note

AG5PB6P 56Gbaud Differential Linear Amplifier Sequence Circuit

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Sequence of Power Supply

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- Eight power supplies are required to drive AG5PB6P.
- Turn on the power of group A (VT) and next is group B (Vcc1, Vcc2), group C (VgG, VgP) and last is group D (Vamp, Vcsg, Vcsp).
- Turn off the power in the reverse procedure (Group D⇒C⇒B⇒A).

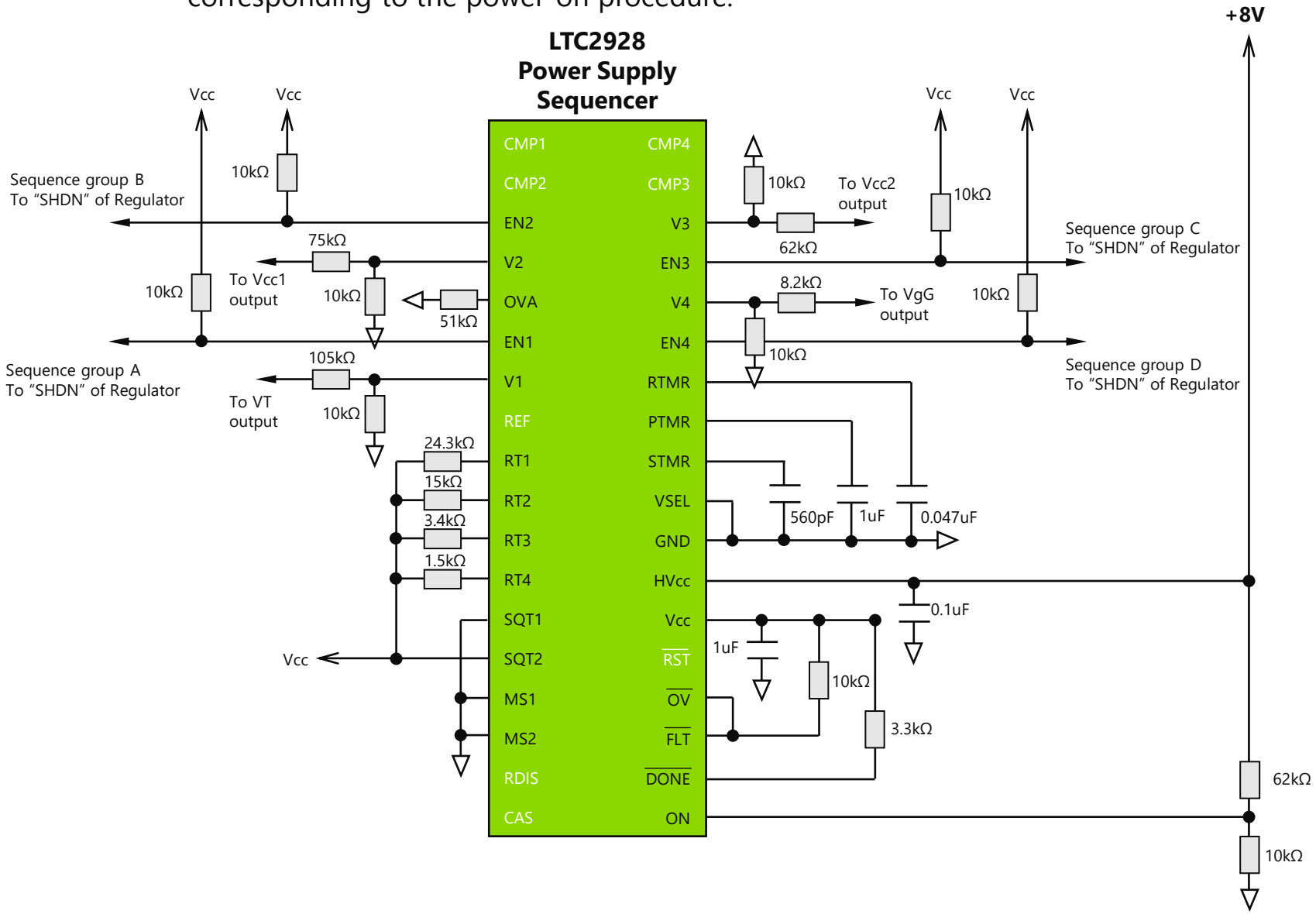
(Point) The sequence circuit has four groups of power supply.
Turn on the power of group A⇒group B⇒group C⇒group D.
In addition, power-on/off sequence in same group is no object.

#	Symbol	Supply voltage (V)	Supply current (mA typ.)	Sequence group	Remark
1	VT	6.2	125	Group A	Fixed power supply
2	Vcc1	4.7	130	Group B	Fixed power supply
3	Vcc2	4	100		Fixed power supply
4	VgG	1～5	0.2	Group C	
5	VgP	0～5	0.2		
6	Vamp	0～2.2	7	Group D	
7	Vcsg	0～4	7.4		
8	Vcsp	0～4.2	8		

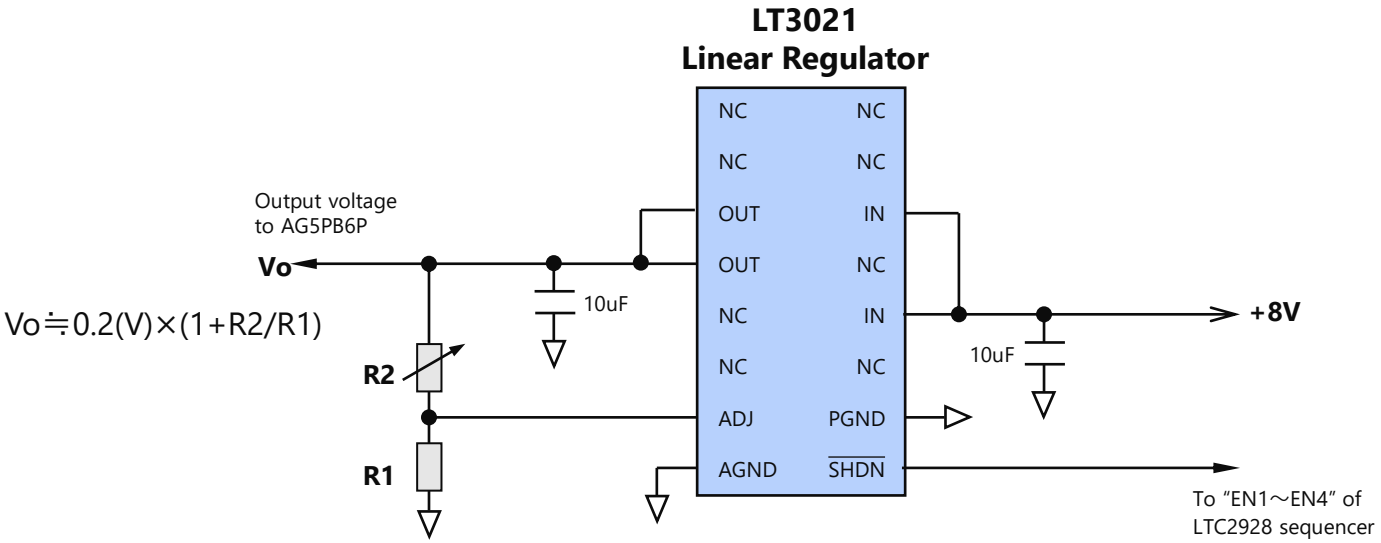
Table 1. Power supply and sequence group

Sequence Circuit

- This section describes the example of sequence circuit of power supply corresponding to the power-on procedure.



Created voltage by regulator



#	Symbol	Output voltage Vo (V)	Resistor R1 (Ω)	Resistor R2 (Ω)	Connection of "SHDN" (sequence group)	Remark
1	VT	6.2	1k	30k	EN1 (Group A)	Power supply R2 resistor is fixed.
2	Vcc1	4.7	1k	22.5k	EN2 (Group B)	Power supply R2 resistor is fixed.
3	Vcc2	4	1k	19k		
4	VgG	0.2～5.2	1.2k	30k	EN3 (Group C)	Voltage adjustable
5	VgP	0.2～5.2	1.2k	30k		Voltage adjustable
6	Vamp	0.2～2.2	1k	10k	EN4 (Group D)	Voltage adjustable
7	Vcsg	0.2～4	1k	20k		Voltage adjustable
8	Vcsp	0.2～4.2	1k	20k		Voltage adjustable

Table 2. Created voltage by regulator with external resistor

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