BQ25505 Configuration for LiFePo battery charging (OV 3.7V) and solar power source

User Input	VBIAS	1,21	V	Fixed

	Comparator threshold for VSTORof charger. Typically the max storage element voltage, e.g. 4.2V for Lilon battery.				
	VBAT_UV < **VBAT_OV** < 5.5V				
Desired					
Desired	RSUM[1]	10	MW		
Desired	VBAT_OV	3,7	V		
			closest 1%resistor[1]		
Computed		Exact	<	>	
Computed	ROV1	4,905	4,870	4,990	MW
Computed	ROV2	5,095	4,990	5,110	MW
Computed	VBAT_OV	→	3,675	3,674	V
Computed					
Selected	ROV1	4,99	MW		
Selected	ROV2	4,99	MW		
Selected		↓			
Typ voltage[3]	VBAT_OV(typ)	3,630	V	-1,93	%diff
Typ voltage[3]					

	Comparator threshold voltages indicating when VSTORhas risen above VBAT_OK_HYST or fallen below VBAT_OK.				
	VBAT_OV > **VBAT_OK_HYST** > VBAT_UV				
	RSUM[1]	12	MW		
	VBAT_OK	2,7	V	> VBAT_UV	
	VBAT_OK_HYST	3	V	> VBAT_OK	
			closest 1%resistor[1]		
		Exact	<	>	
	ROK1	4,840	4,750	4,870	MW
	ROK2	5,960	5,900	6,040	MW
	ROK3	1,200	1,130	1,270	MW
	VBAT_OK	→	2,713	2,711	V
	VBAT_OK_HYST	→	3,001	3,026	V
	ROK1	4,99	MW		
	ROK2	5,99	MW		
	ROK3	1	MW		
		↓			
	VBAT_OK(typ)	2,662	V	-1,41	%diff
	VBAT_OK_HYST (typ)	2,905	V	-3,27	%diff

	For the bq25570 only, comparator threshold for VOUT of buck converter.				
	1.3V < **VOUT** < VBAT_OV				
	RSUM[1]	13	MW		
	VOUT	3,3	V		
			closest 1%resistor[1]		
		Exact	<	>	
	ROUT1	4,767	4,750	4,870	MW
	+10MEG[2]	0,000	0,000	0,000	MW
	ROUT2	8,233	8,060	8,250	MW
	VOUT	→	3,263	3,260	V
	ROUT1	4,75	MW		
	'+10MEG[2]	0,00	MW		
	ROUT2	8,25	MW		
		↓			
	VOUT(typ)	3,312	0,35	%diff	

	Maximum power point threshold, e.g. ~0.7-0.8 of solar panel's open circuit voltage.				
	MPPT				
	RSUM[1]	20	MW		
	VIN_DC(OC)	6	V	Open Circuit Volts	
	VREF_SAMP	4	V	MPP voltage	
			closest 1%resistor[1]		
		Exact	<	>	
	ROC1	3,333	3,320	3,400	MW
	+10MEG[2]	10,000	10,000	10,000	MW
	ROC2	6,667	6,650	6,810	MW
	+10MEG[2]	0,000	0,000	0,000	MW
	VREFSAMP	→	4,002	3,978	V
	ROC1	3,3	MW		
	+10MEG[2]	10,000	MW		
	ROC2	6,6	MW		
	+10MEG[2]	0,000	MW		
		↓			
	VREF_SAMP	4,010	V	0,25	%diff

[1]If the available 1%resistors for the recommend resistor total (RSUM) produce too high of %difference, try using the closest 1%> and < resistor cross combo ORincreasing or decreasing RSUM in order to find a closer 1%resistor match ORadding 1 or more additional resistors and use two resistors in series that sum to the recommended value.

[2]Granularity of resistors values > 10 Mohm is greatly reduced so you may need to use a 10 Mohm resistor in series with a smaller resistor in order to achieve the desired resistance value.

[3]Total dc regulation accuracy isa function of VBIAStolerance, resistor tolerance, line regulation, load regulation and output voltage ripple (i.e., output capacitance).