

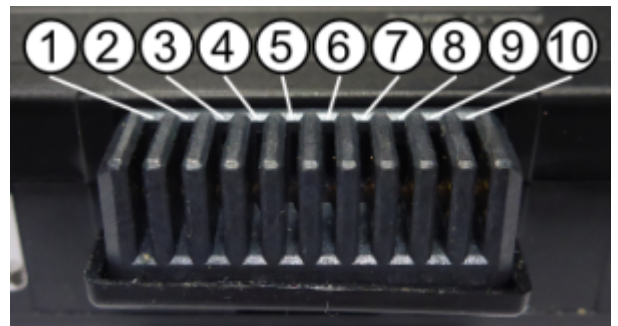
# Pinouts of Laptop/Notebook Batteries:

Type	Manuf.	Notebook	Remark	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6	Pin7	Pin8	Pin9	Pin10	Source	Added	
40001926	?	?				V+							GND	Hannes	160708	
755-4S4000-S1S1	?	?	14.8V 4Ah	V+	V+	C	D	300R to GND	GND	GND	X	X	X	Hannes	190215	
BTP-34A1	?	?	14.8V 4Ah	GND	empty	?	?	?	?	?	V+	X	X	Hannes	170325	
BTP-S31	?	?	10.8V 5.4Ah, Note2b?, stops charging >13V?	GND	?	?	?	?	V+	X	X	X	X	Hannes	171129	
AS07B41	ACER	?	?	BAT+	BAT+	10k Temp?	SCL	SDA	GND	GND	x	x	x	Florian	190809	
AS10B5E	ACER	?	11.1V 6Ah	BAT+	BAT+	EN	?	SCL	SDA	GND	GND	x	x	Florian	190809	
AS10D31	ACER	Travelmate 5740	10.8V 4.4Ah	BAT+	BAT+	EN	TEMP	SCL	SDA	GND	GND	x	x	Florian	190118	
GRAPE32	ACER	?	10.8V 4.4Ah; 11.1V 4.0Ah, Note2	GND	?	?	?	EN(GND)	?	BAT+	x	x	x	Hannes	180325	
GRAPE34	ACER	?	14.8V 4.8Ah	GND	SCL	SDA	?	EN(GND)	?	BAT+	x	x	x	Florian	190617	
A1175	Apple	15-inch MacBook Pro		GND	?	?	?	?	BAT+	x	x	x	x	Hannes	170210	
7564 ?	ASUS	EeePC 4G-BK022		GND	+V			EN					GND	<a href="http://nathandumont.com/">nathandumont.com/..</a>	131205	
A32-K72	ASUS	?	10.8V 5.2Ah	GND	GND		EN 10k V+				V+	V+		Wolfgang	150103	
A41-X550A	ASUS	R510L	14,4V 2,6Ah	GND	GND	GND	SDA	SCL	?	?	V+	V+		Florian	190207	
3R305	DELL	D500/D600	Note2b	GND	GND	ON/OFF	?	GND	SDA	SCL	V+	V+	X	X <a href="http://laptop-junction.com/">laptop-junction.com/..</a>	131203	
75UYF	DELL	C510/C610 / C840	Note2b	GND	NC	Sys	GND	SDA	SCL	V+	X	X	X	Hannes	190424	
	DELL	E4300	Note2b	BAT-			/Ena						V+	X	Hannes	131203
	DELL	Inspiron 6400/M70	Note2b	GND	GND	BAT_VOLT	SYSPRES#(GND)	BAT_PRES#	SDA	SCL	V+	V+	X	Hannes	190424	
M5Y0X	DELL	Latitude E6430	11.1V 9Ah	GND	GND	?	?	?	SDA	SCL	BAT+	BAT+		Florian	190524	
EM-G320L1	Elitegroup	?	14.8V 2.2Ah	V+	empty	C	D	T	GND	GND	X	X	X	Hannes	170325	
4UR18650F-2-5	Fujitsu,u.a.	?	14.8V 3.2Ah	GND	?	?	Ena	?	V+	X	X	X		Hannes	170326	
4UR18650F-2-QC-EF3	Fujitsu	?	14.8V 4Ah	V+	?	?	?	GND	X	X	X	X		Hannes	170326	
3S4400-*	Fujitsu	Amilo M1425	Note2b?	GND	TEMP	?	?	?	SMBD	SMBC	?	?	V+	Hannes	190424	
BP-8389	Fujitsu	Amilo K 7600	11.1V 6.0Ah	GND	Key	GND	T	D	C	V+	V+	X	X	Hannes	190410	
BTP-52EW	Fujitsu	?	14.8V 4.4Ah	V+	V+	Bus?	Bus?	temp?	GND	empty	GND			Wolfgang	160726	
FPCBP59	Fujitsu	?		V+	V+	EN	Bus?	Bus?	Bus?	temp?	empty	GND		Wolfgang	150103	
FPCBP331	Fujitsu	?	10.8V 4.4Ah	V+	V+?	?	?	SCL	SDA	TEMP?	empty	GND		Florian	190118	
FPCBP429	Fujitsu	?	10.8V 6,7Ah	V+	?	?	EN(3,7V)	SCL	SDA	EN(4V)	x	GND		Florian	190912	
SQU-809-F01	Fujitsu	?	11.1V 4.4Ah, Note1	GND	?	?	?	?	?	V+	X	X		Hannes	190329	
UN34AS1-S1	Gericom	?	11.1V 6Ah	V+	V+	C	D	T	GND	GND				Hannes	160721	
NC6120, 364602-001, 365750-001, 372772-001, 398854-001, HSTNN-C12C, PB994A, HSTNN-IB05, HSTNN-LB05, PB994, HSTNN-I03C, HSTNN-I05C	HP	?	10.8V/7.8Ah	GND	GND	T	C	D	V+					Hannes	160709	
HSTNN-CB47	HP	?	?	GND	GND	10k Temp?	?	SDA	SCL	BAT+	BAT+	X	X	Florian	190809	
HSTNN-DB30	HP	?	10.8V/43Wh	GND	?	?	E	?	V+	X	X	X	X	Hannes	170405	
HSTNN-IB2P, 632427-001, VH08083	HP	?	14.8V/83Wh	BAT+	BAT+	SDA	SCL	?	GND	GND				Florian	190523	
HSTNN-UB73, 509459-001	HP	?	10.8V/55Wh	GND	GND	8,7k Temp?	?	SCL	SDA	BAT+	BAT+			Florian	190730	
42T4504	IBM Lenovo	T60?		V+	V+	Bus?	Bus?	temp?	GND	GND				Wolfgang	150103	
42T4649	IBM Lenovo	X200	10,8V/7,8Ah	V+	V+	SCL	SDA	temp?	GND	GND				Florian	190207	
42T4653	IBM Lenovo	?	10,8V/4,9Ah Note1	V+	V+	SCL	SDA	temp?	GND	GND				Hannes	190606	
42T4670	IBM Lenovo	?		V+	V+	SCL	SDA	temp?	GND	GND				Florian	190118	
42T4694	IBM Lenovo	?		V+	V+	Bus?	Bus?	temp?	GND	GND				Wolfgang	150103	
42T4879 52+	IBM Lenovo	X220T		V+	V+	SCL	SDA	Temp (10k)	GND	GND				Florian	190207	
08K8039	IBM Lenovo	?		GND	temp?	Bus?	Bus?	V+						Wolfgang	150103	
02K6817	IBM Lenovo	?		GND	temp?	Bus?	Bus?	V+						Wolfgang	150103	
45N1001 70+	Lenovo	T430/530	10.8V/5,2Ah	V+	V+	SCL	SDA	Temp (10k)	GND	GND				Florian	181211	
45N1011 70++	Lenovo	T430/530/ W530	11.1V/8.4Ah	V+	V+	SCL	SDA	Temp (10k)	GND	GND				Florian	181211	

Type	Manuf.	Notebook	Remark	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6	Pin7	Pin8	Pin9	Pin10	Source	Added
45N1775 68	Lenovo	T450s	11.1V/2.09Ah	V+	V+	SCL	SDA	Temp (10k)	GND	GND				Florian	190207
BTP-C0BM	MEDION	?	11.1V/4.0Ah	GND	10k Temp?	?	SCL	SDA	BAT+					Florian	190822
BTP-C2BM	MEDION	MD96850 MD96640	11.1V/7.8Ah	GND					V+					Wolfgang	160726
A32-A15	MSI	?	10,8V/4,4Ah	BAT+	BAT+	TEMP?	SDA	SCL	EN	EN	GND	GND		Florian	190523
BTY-L74	MSI	?	11.1V/4,4Ah	GND	GND	10k Temp?	SDA?	SCL?	EN	EN	BAT+	BAT+		Florian	190723
PCGA-BP2NX	SONY	?	14.8V/4Ah	V+	empty	?	?	?	?	/Ena(1k zu GND)	GND	GND	X	Hannes	170325
	Toshiba	Satellite C675D		GND	GND	SCL	SDA	Temp?	SysPresent	?	BAT+	BAT+		<a href="http://kuzyatech.com/">kuzyatech.com/..</a>	131205
PA2510U	Toshiba	?		GND						temp?			V+	Wolfgang	150103
PA3107U	Toshiba	Satellite Pro 4600	ON: beide Zusatzpins verbinden	GND						temp?		V+		Wolfgang	150103
PA3534U	Toshiba	?	Note2b?	GND	GND	SCL	SDA	10k Temp?	/Ena	?	?	V+	X	Hannes, Florian	190722

- Note1: Battery only starts charging when empty or discharging directly before charging.
- Note2: Needs single bus communication before charging.
- Note2b: Needs bus communication for charging (details unknown).
- Note3: Needs continuous bus communication every <30s for charging (for Dell: see details below).

Pinzuordnung: so wie der Akku in Laptop kommt und der Laptop dann aufm Tisch stehen würde, ist oben. Dann werden die Kontakte von links aufsteigend nummeriert.



## DELL-battery charge-enable:

DELL-Akkus müssen zur Aktivierung der Ladung mittels SMBUS-Kommunikation dazu motiviert werden.

- I2C-Adresse: 0x0B (Standard-Adresse eines SMBus-Akkus)
- Daten: 0x00 0x0A 0x00 (Register 0x00 = ManufacturerAccess-Register)

getestet mit:

- Type 4R084 (Aktivierungssequenz reicht einmal)
- Type 75UYF (Latitude C510/C610/C840 Akku) (Aktivierungssequenz reicht einmal)
- Type NT349 (Sequenz muss mindestens alle 30s wiederholt werden)
- Type U4873 (Precision M90)(Aktivierungssequenz reicht einmal)

## MSI BTY-L47 charge-enable:

Um den Akku zum Laden zu bewegen ist es notwendig, die Enable-Pins auf GND zu ziehen und an den SMBus Pins 3,3V (z.B. über 10k) anzulegen. Buskommunikation ist nicht nötig.

## Bestimmen einer unbekanntes Anschlussbelegung:

Hier kommt in naher Zukunft eine kleine Anleitung, wie sich die unbekanntes Pinbelegung eines Akkus recht einfach bestimmen lässt.

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