

# mikroelektronik

# Information

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**Vergleichsliste CMOS-Schaltkreise**

2/87 (11)

Nr.	Funktion	Veröffentlichung	A-Serie	B-Serie											
				USSR	vergleichstyp	Texas Instruments	Solitron	HE/DDR	OSH/Polen	EL/Jugoslawien	Itecia/CSFR	HE/Russland	Ungarn		
1	4 NOR-Gatter mit je 2 Eing.	DBS 01/87	K 561 LE 5	CD 4001 A	TP 4001 A	OH 4001 AE	V 4001 D	HCY 64001 H	CD 4001 BE	HF 4001	HMC 4001	4001 BPC			
2	2 NOR-Gatter mit je 4 Eing.	DBS 01/87	K 561 LE 6	CD 4002 A	TP 4002 A	OH 4002 AE	-	-	-	HF 4002	HMC 4002	-			
3	2 Transistorpaare, 1 Inverter	-	K 561 LP 1	CD 4007 A	TP 4007 A	OH 4007 AE	V 4007 D	-	-	-	-	-			
4	4bit-Wellenformer	DBS 01/87	K 561 LM 1	CD 4008 A	TP 4008 A	OH 4008 AE	-	-	-	-	-	-			
5	4 NAND-Gatter mit je 2 Eing.	DBS 01/87	K 561 LA 7	CD 4011 A	TP 4011 A	OH 4011 AE	V 4011 D	HCY 64011 H	CD 4011 BE	HF 4011	HMC 4011	4011 BPC			
6	2 NAND-Gatter mit je 4 Eing.	DBS 01/87	K 561 LA 8	CD 4012 A	TP 4012 A	OH 4012 AE	V 4012 D	HCY 64012 H	CD 4012 BE	HF 4012	HMC 4012	4012 BPC			
7	2 x D-Flip-Flop	DBS 01/87	K 561 LM 2	CD 4013 A	TP 4013 A	OH 4013 AE	V 4013 D	HCY 64013 H	CD 4013 BE	HF 4013	HMC 4013	4013 BPC			
8	2 x 4bit-Schieberegister	-	K 561 LR 2	CD 4015 A	TP 4015 A	OH 4015 AE	V 4015 D	-	-	HF 4015	HMC 4015	-			
9	Dekadischer Zähler	-	K 561 LE 8	CD 4017 A	TP 4017 A	OH 4017 AE	V 4017 D	-	-	-	HMC 4017	4017 BPC			
10	4 AND/OR-Auswertgatter	DBS 01/87	K 561 LS 2	CD 4019 A	TP 4019 A	OH 4019 AE	V 4019 D	HCY 64019 H	-	-	HMC 4019	-			
11	16bit-Binärräzähler	-	K 561 LE 16	CD 4020 A	-	-	-	-	CD 4020 BE	HF 4020	HMC 4020	4020 BPC			
12	Zähler mit 8 dekodierten Ausg.	DBS 01/87	K 561 LE 9	CD 4022 A	-	-	-	-	-	-	HMC 4022	-			
13	3 NAND-Gatter mit je 3 Eing.	DBS 01/87	K 561 LA 9	CD 4023 A	TP 4023 A	OH 4023 AE	V 4023 D	HCY 64023 H	CD 4023 BE	-	-	4023 BPC			
14	3 NOR-Gatter mit je 3 Eing.	DBS 01/87	K 561 LE 10	CD 4025 A	TP 4025 A	OH 4025 AE	-	-	-	-	HMC 4025	-			
15	2 JK-Master-Slave-Flip-Flop	DBS 01/87	K 561 LM 1	CD 4027 A	TP 4027 A	OH 4027 AE	V 4027 D	HCY 64027 H	CD 4027 BE	-	HMC 4027	4027 BPC			
16	BCD-Dreimaldekorator	DBS 01/87	K 561 LO 1	CD 4028 A	TP 4028 A	OH 4028 AE	V 4028 D	HCY 64028 H	CD 4028 BE	-	HMC 4028	4028 BPC			
17	Binär/BCD-Zähler	-	K 561 LE 14	CD 4029 A	TP 4029 A	OH 4029 AE	V 4029 D	HCY 64029 H	CD 4029 BE	HF 4029	HMC 4029	4029 BPC			
18	4 EX/OR-Gatter mit je 2 Eing.	DBS 01/87	K 561 LP 2	CD 4030 A	-	OH 4030 AE	V 4030 D	HCY 64030 H	CD 4030 BE	HF 4030	HMC 4030	4030 BPC			
19	Befehl. bildr. p/a Busregister	DBS 01/87	K 561 LR 6	CD 4034 A	-	OH 4034 AE	V 4034 D	-	-	-	HMC 4034	-			
20	4bit-Schieberegister	DBS 01/87	K 561 LR 9	CD 4035 A	-	OH 4035 AE	V 4035 D	-	-	-	HMC 4035	-			
21	4bit-D-Latch	DBS 01/87	K 561 TR 3	CD 4042 A	-	OH 4042 AE	V 4042 D	-	CD 4042 BE	-	HMC 4042	4042 BPC			
22	4 RS-Flip-Flop	-	K 561 TR 1	CD 4044 A	-	OH 4044 AE	V 4044 D	-	CD 4044 BE	-	HMC 4044	4044 BPC			
23	PLL-Schaltung	-	-	-	-	-	V 4046 D	-	-	HF 4046	-	-			
24	Multifunktionsgatter	-	-	-	-	OH 4048 AE	V 4048 D	-	-	-	HMC 4048	-			
25	4 Treiber	DBS 01/87	K 561 PU 4	CD 4050 A	TP 4050 A	OH 4050 AE	V 4050 D	HCY 64050 H	CD 4050 BE	HF 4050	HMC 4050	4050 BPC			
26	8-Kanal-Anal.-Multipl./Div.	DBS 01/87	K 561 KP 2	CD 4051 A	-	-	V 4051 D	-	-	HF 4051	HMC 4051	-			
27	4 bilaterale Analogschalter	DBS 01/87	K 561 KT 3	CD 4066 A	-	-	V 4066 D	HCY 64066 H	CD 4066 BE	HF 4066	HMC 4066	4066 BPC			
28	4 Inverter	DBS 01/87	K 561 LM 2	CD 4069 A	-	-	CD 4069 BE	-	-	-	HMC 4069	4069 BPC			
29	4 NAND-Schmitt-Triggler	-	K 561 TL 1	CD 4093 A	-	-	CD 4093 BE	-	-	-	HMC 4093	4093 BPC			
30	4bit-Binärräzähler	DBS 01/87	K 561 LE 11	HC 14516 A	-	-	-	-	-	-	-	-			
31	2 x 4bit-Binärräzähler	DBS 01/87	K 561 LE 10	HC 14520 A	-	OH 4520 AE	V 4520 D	HCY 64520 H	CD 4520 BE	-	HMC 4520	-			
32	16bit-Paritätsprüfer	DBS 01/87	K 561 SA 1	HC 14531 A	-	-	V 4531 D	-	-	-	-	-			
33	2 x Präzisionsmonoflop	-	-	-	-	-	V 4538 D	-	-	-	-	-			
34	4bit-Größenkomparator	DBS 01/87	K 561 LP 2	HC 14585 A	-	-	V 4585 D	-	-	-	-	-			
35	4 Treiber, Invertierend	-	-	-	-	-	V 40098 D	-	-	-	-	-			
36	BCD-zu-7-Segment-Dekoder	-	-	-	-	-	V 40511 D	-	CD 4511 BE*	-	-	-			

\* Abweichungen im Binärwert

Die angegebenen Vergleichstypen sind pin- und funktionskompatibel. Unterschiede bestehen in den statischen und dynamischen Kennwerten.

Die in der Spalte Veröffentlichung genannten Termine gelten für die Schaltkreise aus USSR-Produktion.

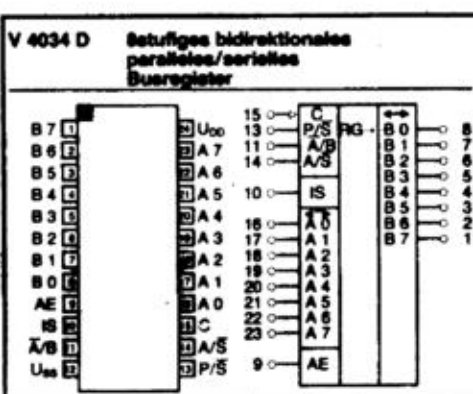
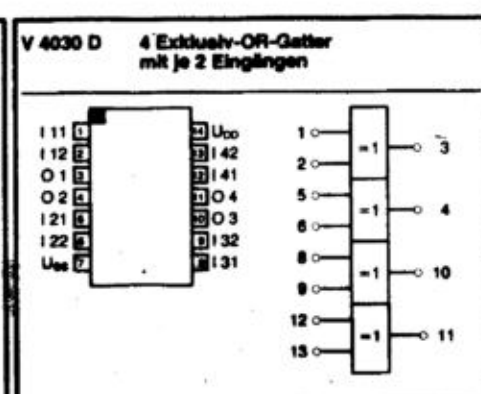
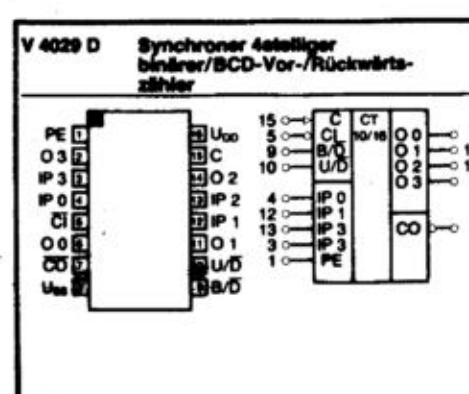
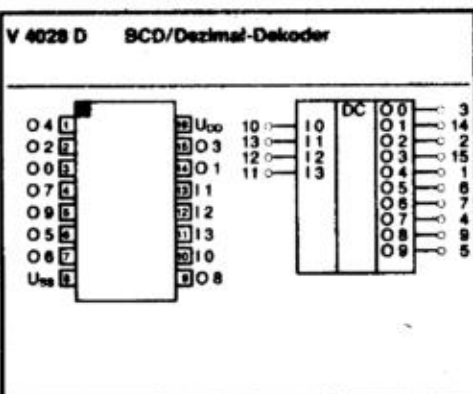
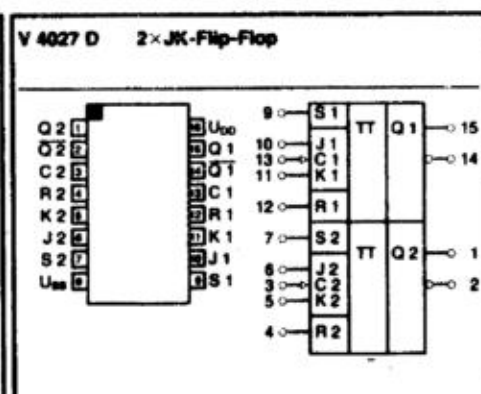
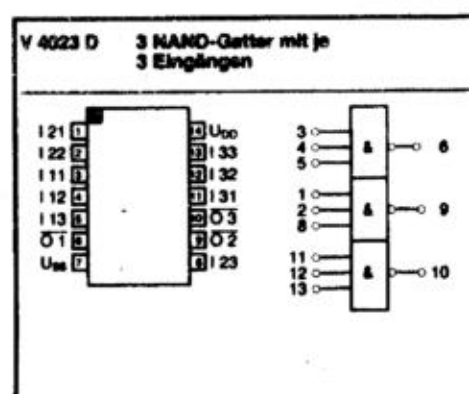
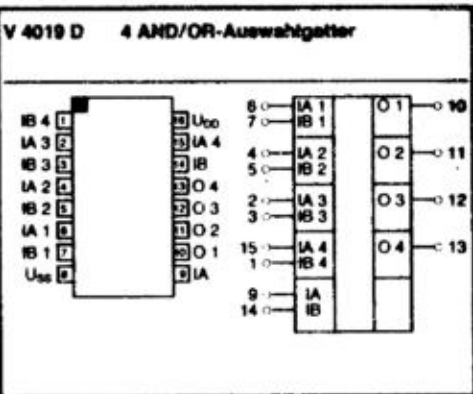
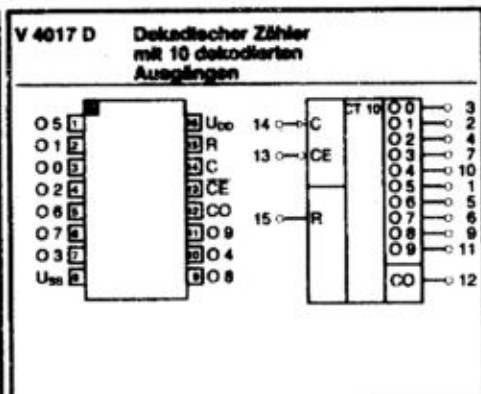
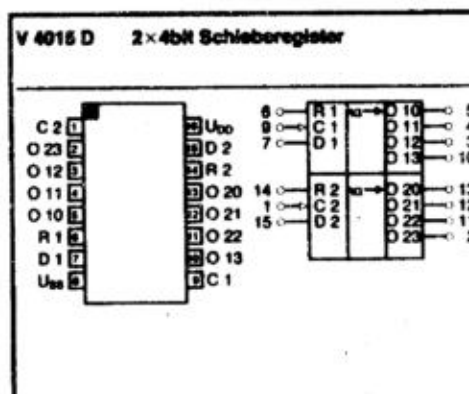
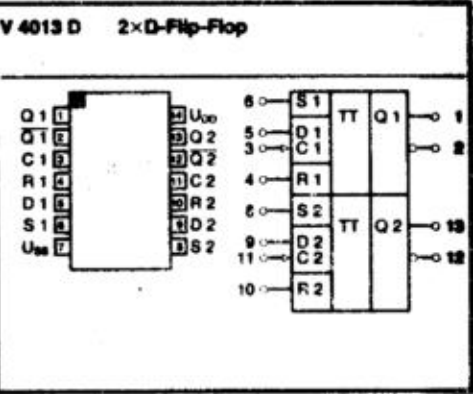
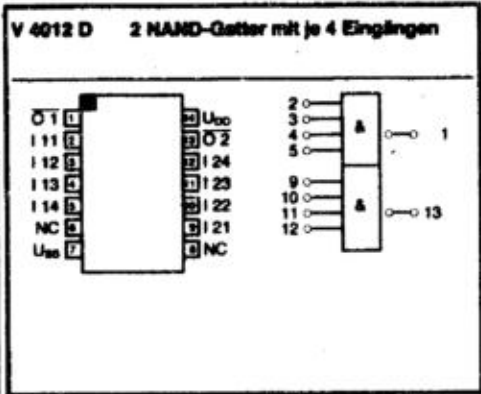
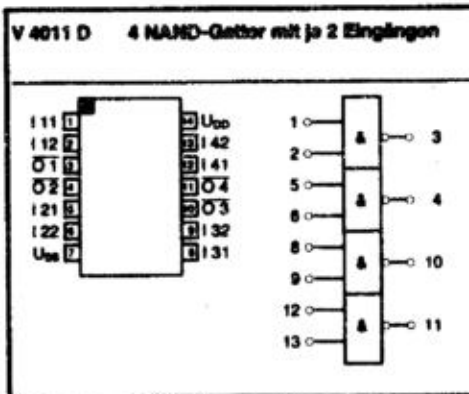
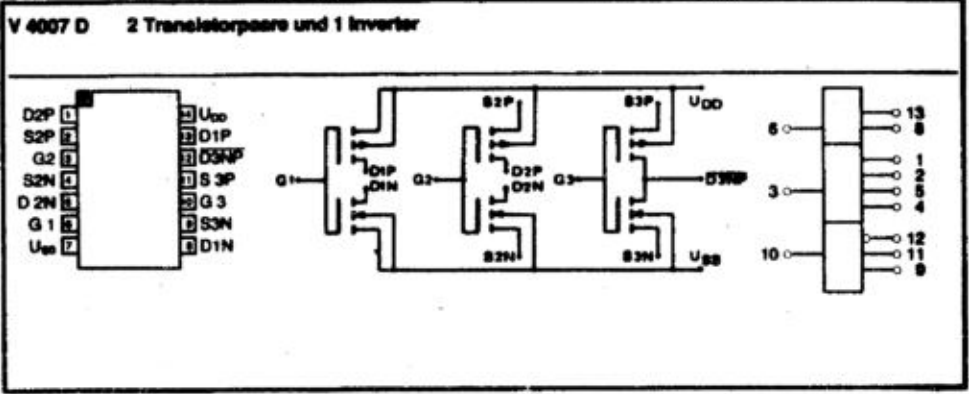
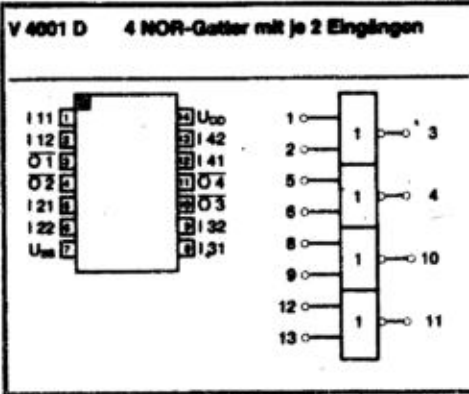
Folgende Typen aus DDR-Produktion wurden bereits früher veröffentlicht:

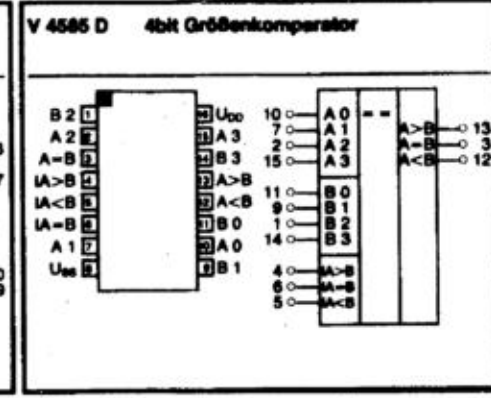
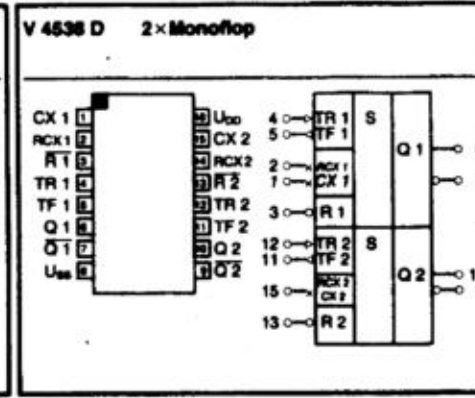
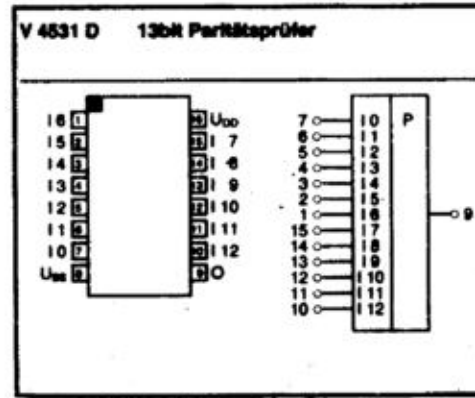
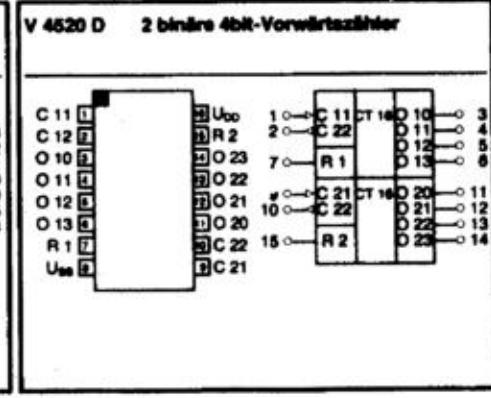
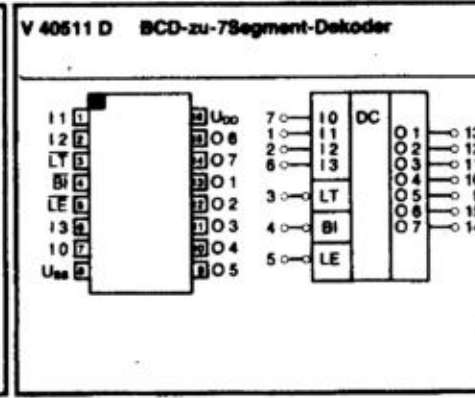
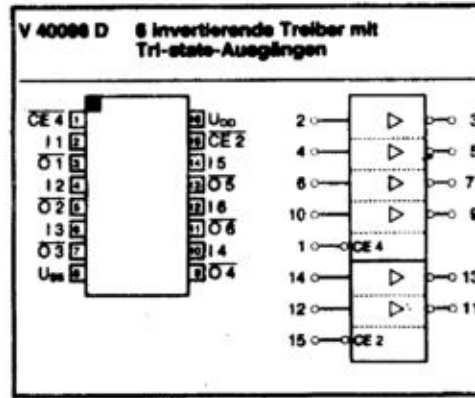
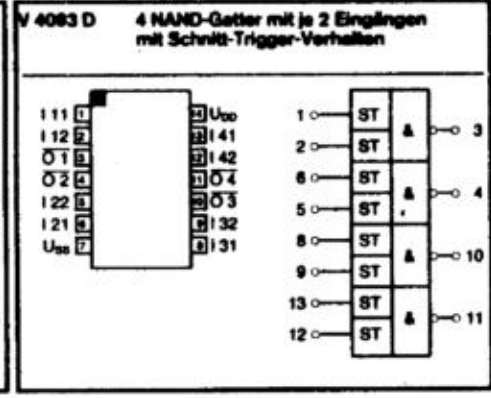
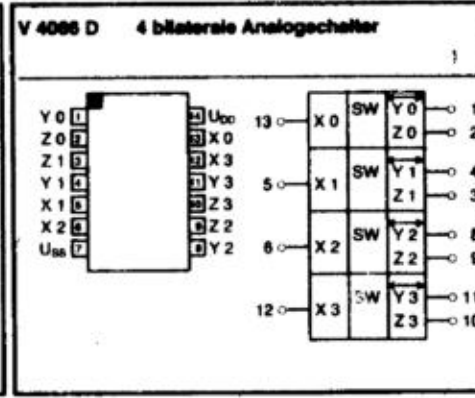
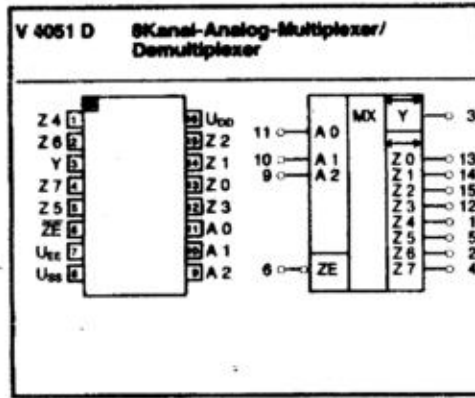
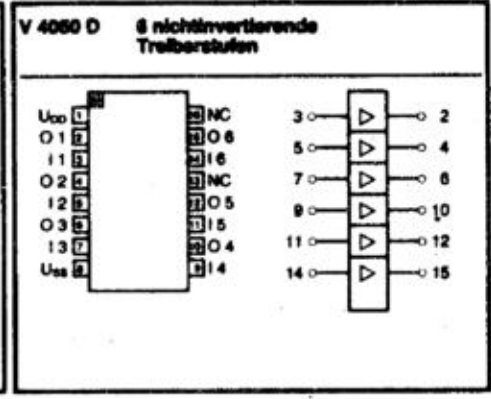
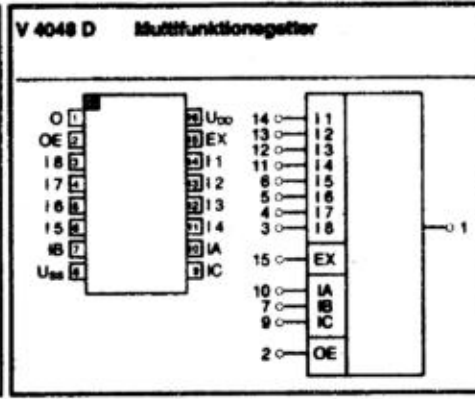
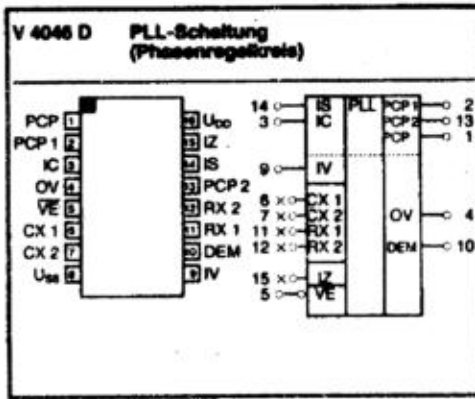
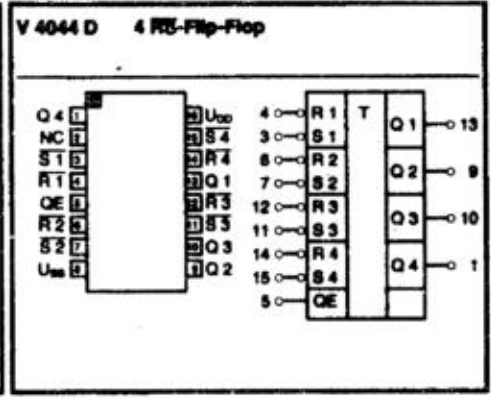
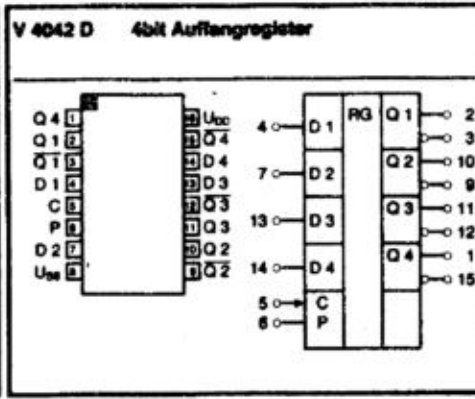
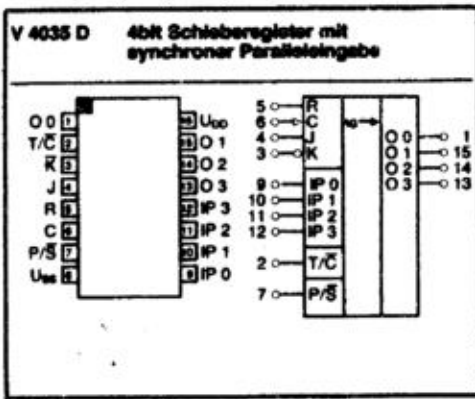
DBS 01/84:	V 4001 D	V 4027 D	DBS 02/84:	U 4050 D	DBS 01/85:	V 4046 D	DBS = Detektorleistung
(4)	V 4007 D	V 4028 D	(5)	U 4093 D	(7)	V 4051 D	Herzgeber: VEB Applikationszentrum
	V 4011 D	V 4029 D		U 40098 D		V 4066 D	Elektronik Berlin
	V 4012 D	V 4030 D		U 40511 D		V 4520 D	Melrose Straße 25
	V 4013 D	V 4034 D				V 4531 D	Berlin
	V 4015 D	V 4035 D				V 4538 D	1 0 3 5
	V 4017 D	V 4042 D				V 4585 D	
	V 4019 D	V 4044 D					
	V 4023 D	V 4048 D					

DBS 02/86: V 4050 D  
(9) V 4093 D  
V 40098 D  
V 40511 D

DBS 01/87:  
(10)

Nr.	B-Serie											
	RCA	Motorola	Fairchild	SGS ATES	Toshiba	Valvo	Solid State Scientific	Hstachi	National Semiconductor	Panasonic	Signetics	VR China
1	CD 4001 BE	MC 14001 BCP	4001 BPC	HEF 4001 BE	TC 4001 BP	HEF 4001 BP	SCL 4001 BE	HO 14001 B	CD 4001 BCP	HN 4001 B	HEF 4001 BP	CC 4001 EE
2	CD 4002 BE	MC 14002 BCP	4002 BPC	HEF 4002 BE	TC 4002 BP	HEF 4002 BP	SCL 4002 BE	HO 14002 B	CD 4002 BCP	HN 4002 B	HEF 4002 BP	CC 4002 EE
3	CD 4007 UBE	MC 14007 UBPC	4007 UBPC	HEF 4007 UBE	TC 4007 BP	HEF 4007 BP	SCL 4007 UBE	HO 14007 B	CD 4007 BCP	HN 4007 B	HEF 4007 BP	CC 4007 EE
4	CD 4008 BE	MC 14008 BCP	4008 BPC	HEF 4008 BE	TC 4008 BP	HEF 4008 BP	SCL 4008 BE	HO 14008 B	CD 4008 BCP	-	HEF 4008 BP	CC 4008 EE
5	CD 4011 BE	MC 14011 BCP	4011 BPC	HEF 4011 BE	TC 4011 BP	HEF 4011 BP	SCL 4011 BE	HO 14011 B	CD 4011 BCP	HN 4011 B	HEF 4011 BP	CC 4011 EE
6	CD 4012 BE	MC 14012 BCP	4012 BPC	HEF 4012 BE	TC 4012 BP	HEF 4012 BP	SCL 4012 BE	HO 14012 B	CD 4012 BCP	HN 4012 B	HEF 4012 BP	CC 4012 EE
7	CD 4013 BE	MC 14013 BCP	4013 BPC	HEF 4013 BE	TC 4013 BP	HEF 4013 BP	SCL 4013 BE	HO 14013 B	CD 4013 BCP	HN 4013 B	HEF 4013 BP	CC 4013 EE
8	CD 4015 BE	MC 14015 BCP	4015 BPC	HEF 4015 BE	TC 4015 BP	HEF 4015 BP	SCL 4015 BE	HO 14015 B	CD 4015 BCP	HN 4015 B	HEF 4015 BP	CC 4015 EE
9	CD 4017 BE	MC 14017 BCP	4017 BPC	HEF 4017 BE	TC 4017 BP	HEF 4017 BP	SCL 4017 ABE	HO 14017 B	CD 4017 BCP	HN 4017 B	HEF 4017 BP	CC 4017 EE
10	CD 4019 BE	-	4019 BPC	HEF 4019 BE	TC 4019 BP	HEF 4019 BP	SCL 4019 BE	HO 14019 B	CD 4019 BCP	-	HEF 4019 BP	-
11	CD 4020 BE	MC 14020 BCP	4020 BPC	HEF 4020 BE	TC 4020 BP	HEF 4020 BP	SCL 4020 ABE	HO 14020 B	CD 4020 BCP	-	HEF 4020 BP	-
12	CD 4022 BE	MC 14022 BCP	4022 BPC	HEF 4022 BE	TC 4022 BP	HEF 4022 BP	SCL 4022 ABE	-	CD 4022 BCP	-	HEF 4022 BP	CC 4022 EE
13	CD 4023 BE	MC 14023 BCP	4023 BPC	HEF 4023 BE	TC 4023 BP	HEF 4023 BP	SCL 4023 BE	HO 14023 B	CD 4023 BCP	HN 4023 B	HEF 4023 BP	CC 4023 EE
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19	CD 4034 BE	MC 14034 BCP	4034 BPC	HEF 4034 BE	TC 4034 BP	-	SCL 4034 ABE	HO 14034 B	CD 4034 BCP	-	-	-
20	CD 4035 BE	MC 14035 BCP	4035 BPC	HEF 4035 BE	TC 4035 BP	HEF 4035 BP	SCL 4035 BE	HO 14035 B	CD 4035 BCP	HN 4035 B	HEF 4035 BP	CC 4035 EE
21	CD 4042 BE	MC 14042 BCP	4042 BPC	HEF 4042 BE	TC 4042 BP	HEF 4042 BP	SCL 4042 BE	HO 14042 B	CD 4042 BCP	-	HEF 4042 BP	CC 4042 EE
22	CD 4044 BE	MC 14044 BCP	4044 BPC	HEF 4044 BE	TC 4044 BP	HEF 4044 BP	SCL 4044 ABE	HO 14044 B	CD 4044 BCP	-	HEF 4044 BP	CC 4044 EE
23	CD 4046 BE	MC 14046 BCP	4046 BPC	HEF 4046 BE	TC 4046 BP	HEF 4046 BP	SCL 4046 BE	HO 14046 B	CD 4046 BCP	-	HEF 4046 BP	CC 4046 EE
24	CD 4048 BE	-	-	HEF 4048 BE	TC 4048 BP	-	-	-	CD 4048 BCP	-	-	CC 4048 EE
25	CD 4050 BE	MC 14050 BCP	4050 BPC	HEF 4050 BE	TC 4050 BP	HEF 4050 BP	-	HO 14050 B	CD 4050 BCP	HN 4050 B	HEF 4050 BP	CC 4050 EE
26	CD 4051 BE	MC 14051 BCP	4051 BPC	HEF 4051 BE	TC 4051 BP	HEF 4051 BP	SCL 4051 BE	-	CD 4051 BCP	-	HEF 4051 BP	CC 4051 EE
27	CD 4066 BE	MC 14066 BCP	4066 BPC	HEF 4066 BE	TC 4066 BP	HEF 4066 BP	SCL 4066 BE	-	CD 4066 BCP	HN 4066 B	HEF 4066 BP	CC 4066 EE
28	CD 4069 UBE	MC 14069 UBPC	4069 UBPC	HEF 4069 UBE	TC 4069 BP	HEF 4069 BP	SCL 4069 UBE	-	CD 4069 BCP	HN 4069 B	HEF 4069 BP	CC 4069 EE
29	CD 4093 BE	MC 14093 BCP	4093 BPC	HEF 4093 BE	TC 4093 BP	HEF 4093 BP	SCL 4093 BE	HO 14093 B	CD 4093 BCP	HN 4093 B	HEF 4093 BP	CC 4093 EE
30	CD 4516 BE	MC 14516 BCP	4516 BPC	HEF 4516 BE	-	-	HEF 4516 BP	-	-	HN 4516 B	HEF 4516 BP	-
31	CD 4520 BE	MC 14520 BCP	4520 BPC	HEF 4520 BE	TC 4520 BP	HEF 4520 BP	SCL 4520 BE	HO 14520 B	CD 4520 BCP	HN 4520 B	HEF 4520 BP	CC 4520 EE
32	-	MC 14531 BCP	4531 BPC	-	TC 4531 BP	HEF 4531 BP	SCL 4531 BE	-	-	-	HEF 4531 BP	-
33	CD 4538 BE	MC 14538 BCP	4538 BPC	-	-	HEF 4538 BP	-	-	CD 4538 BCP	HN 4538 B	HEF 4538 BP	-
34	CD 4585 BE	MC 14585 BCP	-	-	TC 4585 BP	HEF 4585 BP	SCL 4585 BE	HO 14585 B	-	HN 4585 B	HEF 4585 BP	-
35	-	-	40098 BPC	-	-							





Literatur

- /1/ CMOS DATA BOOK, National Semiconductor 1978
- /2/ CMOS DATA BOOK, Fairchild 1977
- /3/ RCA COS/MOS Integrated circuits, 1975
- /4/ Elektronska Industrija NIS-Fabrika Poluprovodnika, COS/MOS Integrated Circuits, April 1981
- /5/ Elektronska Industrija, Semiconductors Summary 1985
- /6/ SGS ATES Shortform Semiconductor Products 1979/80
- /7/ SGS ATES Shortform Semiconductor Products and Systems 1984
- /8/ Integrierte Digitalschaltungen LOCOS-Reihe HEF 4000 B 1983, Datenbuch Valvo
- /9/ CMOS Integrated circuits National 1975
- /10/ KOVO PRAHA Tesla-Katalog 1985-86
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- /12/ Integrated circuits/Integrierte Schaltkreise 1984-85, KOVO CSSR
- /13/ Mikroelektronika, Data book 1985, Rumänien
- /14/ Macro-Marketing, Fairchild-Preisliste 1982
- /15/ Macro-Marketing, Motorola-Preisliste 1982
- /16/ Macro-Marketing, National-Preisliste 1982
- /17/ Macro-Marketing, RCA-Preisliste 1982
- /18/ Macro-Marketing, Signetics-Preisliste 1982
- /19/ Motorola the european cmos selection
- /20/ UNITRA, LISTA PREFERENCYJNA, 1982/84, Polen
- /21/ CMOS Logic Circuits for Design Engineers, Texas Instruments 1974
- /22/ MIKROELEKTRONIKAI VALLALAT Enterprise for Micro-Electronics, Ungarn
- /23/ ELEKTRONSKA INDUSTRIJA Semiconductors Summary 1984, Jugoslawien
- /24/ CMOS, B-Series, Integrated circuits, Solid State Scientific Inc. 1976
- /25/ C<sup>2</sup>MOS Toshiba, 1978, Katalog
- /26/ RCA COS/MOS Integrated Circuits 9-80
- /27/ CMOS Integrated Circuits 1985, VR China
- /28/ INTEGROVANE OBVODY TRANZISTORY, DIODY, TYRISTORY, TRIAKY, OPTOELEKTRONICKE SOUCASTKY 1983  
CSSR, Tesla
- /29/ INTEGRATED CIRCUITS (DIGITAL) ELORG, UdSSR
- /30/ Verzeichnis von integrierten Mikroschaltungen aus der UdSSR-Produktion
- /31/ Integralnye mikroschemy (zifrowye)
- /32/ Katalog integralnych mikroschem
- /33/ IC-Master 1982, USA
- /34/ IC-Master 1986, USA

Die vorliegenden Datenblätter dienen ausschließlich der Information! Es können daraus keine Liefermöglichkeiten oder Produktionsverbindlichkeiten abgeleitet werden. Änderungen im Sinne des technischen Fortschritts sind vorbehalten.

# RFET

Herausgeber

**vab applikationszentrum elektronik berlin**  
im vab kombinat mikroelektronik

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