23.9.1968
M Strange

RC 4000 DATA CHANNELS

Contents

The Device Command code of 6 bits includes a basic command field of 2 bits and a modifier field of 4 bits

IO BUS (22:23)	Basic command field
IO BUS (18:21)	Modifier field.

The 16 possible modifications are specific for each type of devices. In the microprogram, controlling the input/output operations, only the following 4 basic commands are recognized:

IO BUS (22,23) = b00 Sense
IO BUS (22,23) = b01 Control
IO BUS (22,23) = b10 Read
IO BUS (22,23) = b11 Write

2.4. LDC Input/Output Signals

Figure 1-4 shows the timing charts of the possible input/output operations. The operations are completely controlled by the IO instruction microprogram in accordance with the received device Connected and Ready Status. An LDC output signal is defined as a signal transferred from the CPU via a busline to a device controller. An LDC input signal is a signal generated in the device controller and transferred via a busline to the CPU. The input/output signal functions are specified below.

LDC Outputs:

IO Enable	The signal indicates the period of the IO operation. When IO Enable = 1, the addressed device must reply to the busline signals; when IO Enable = 0, no device must interfer with the channel.
IO Address	The signal on this busline indicates the selection phase. Device address and command information are on the buslines IO BUS (0:23).
IO Activate	This busline signal indicates that the addressed device has to be selected and that the device command code has to be stored.
IO Transfer	The signal indicates the data phase. In output operations (Write, Control) a Data Word is available on the buslines IO BUS (0:23).

In input operations (Sense) the data and status word from the selected device (DEV Data) must be gated to the buslines IO BUS (0:23).

IO BUS (0:23)

In the selection phase (IO Address = 1):

IO BUS (0:17) = Device Address

IO BUS (18:23) = Device Command

In the data phase (IO Transfer = 1) for Write and Control commands:

IO BUS (0:23) = W(0:23) (data word to be transferred from CPU to device controller).

In the data phase for Sense commands IO BUS (0:23) is used for transfer of DEV Data (0:23) from device controller to CPU.

LDC Inputs:

DEV Connected

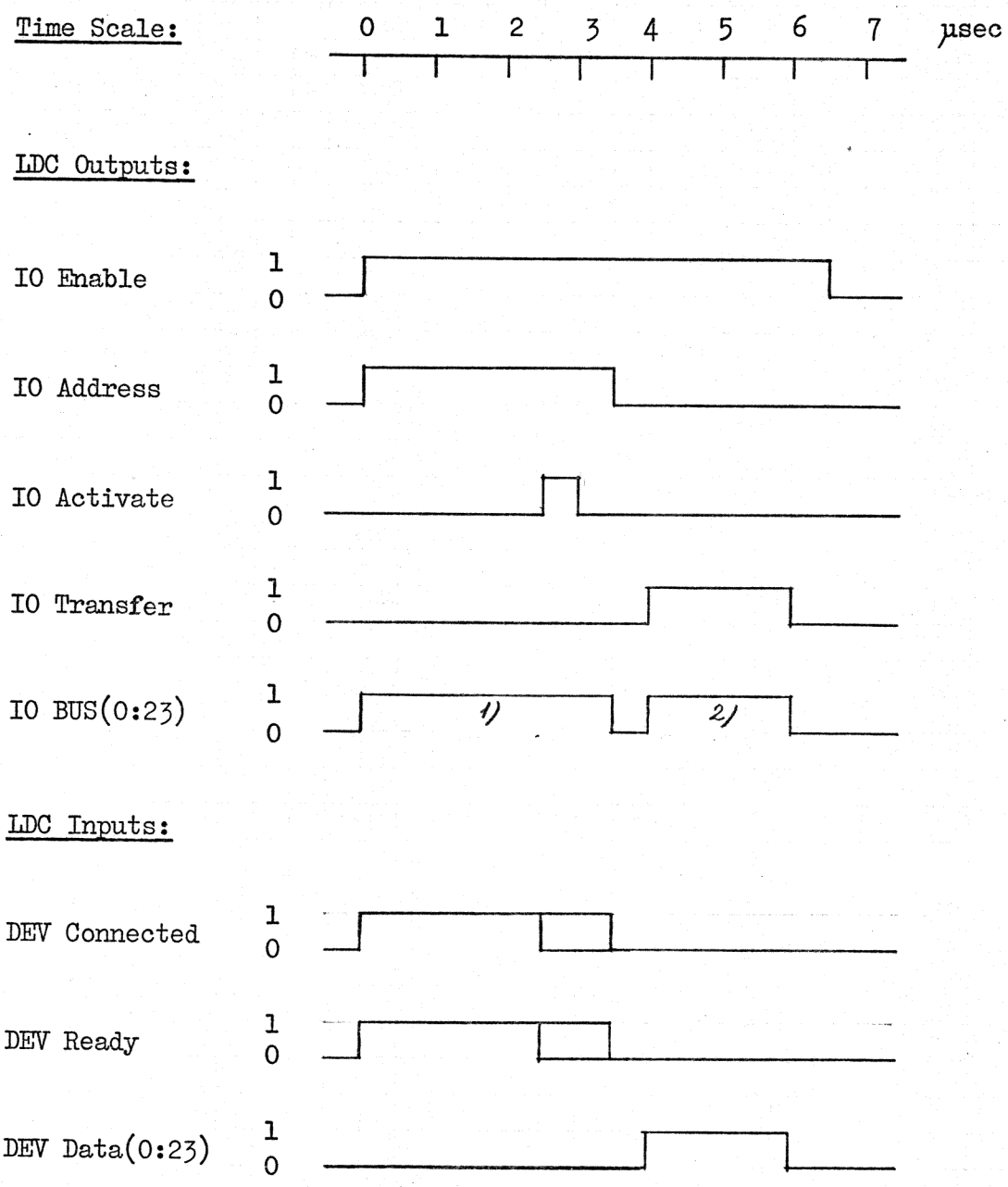
This signal, which is generated in the device controller, indicates that the device power supply is switched on and that all cable connection e.g. to the external device, are established.
DEV Connected must be gated to the busline IO Connected when the device is addressed and IO Address = 1.

DEV Ready

The signal indicates that the device controller is ready to accept IO instructions. During operation the device is Not Ready and IO instructions are rejected. DEV Ready must be gated to the busline IO Ready when the device is addressed and IO Address = 1.

DEV Data (0:23)

This is a data word to be transferred from device controller to CPU (W register) during execution of a Sense command. DEV Data (0:23) has to be gated to the buslines IO BUS (0:23) during the period indicated by IO Transfer.

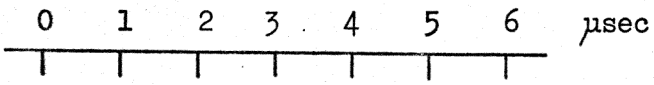


1) IO BUS(0:17) = Device Address
   IO BUS(18:23)= Device Command

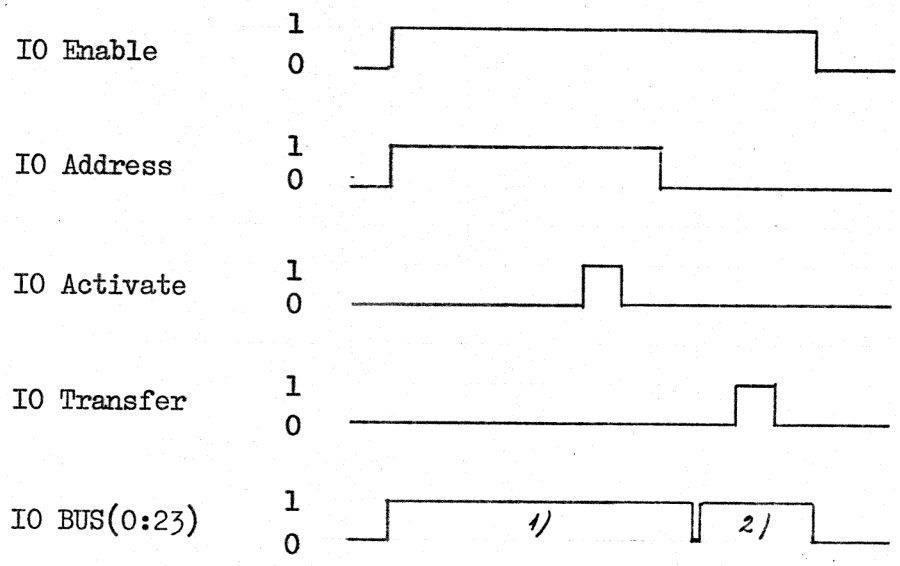
2) IO BUS(0:23) Used for transfer of DEV Data(0:23)

Unit		
RC 4000	Low Speed Data Channel	Figure 2
Dwg. No.	Timing Chart for SENSE Command	

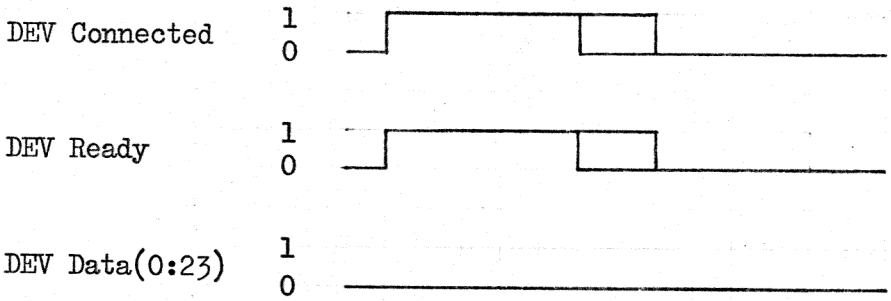
Time Scale:



LDC Outputs:



LDC Inputs:

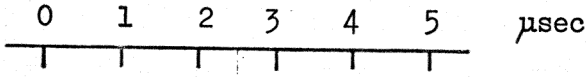


1) IO BUS(0:17) = Device Address
   IO BUS(18:23)= Device Command

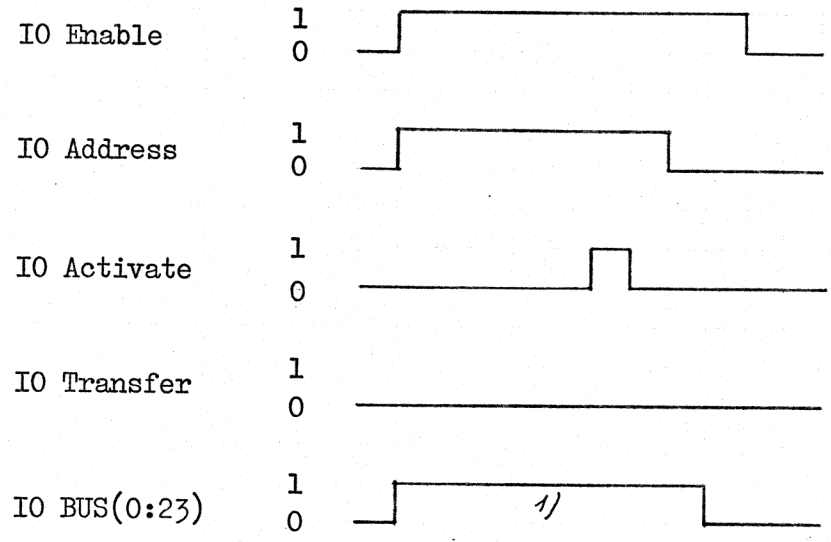
2) IO BUS(0:23) = 24 bit Output Character

Unit		
RC 4000	Low Speed Data Channel Timing Chart for WRITE AND CONTROL Commands	Figure 3
Dwg. No.		

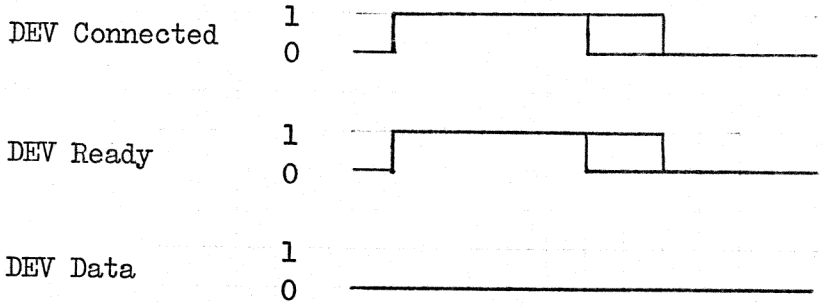
Time Scale:



LDC Outputs:



LDC Inputs:



1) IO BUS(0:17) = Device Address
IO BUS(18:23)= Device Command

Unit: RC 4000 Dwg. No.	Low Speed Data Channel Timing Chart for READ Command	Figure 4

A/S REGNECENTRALEN

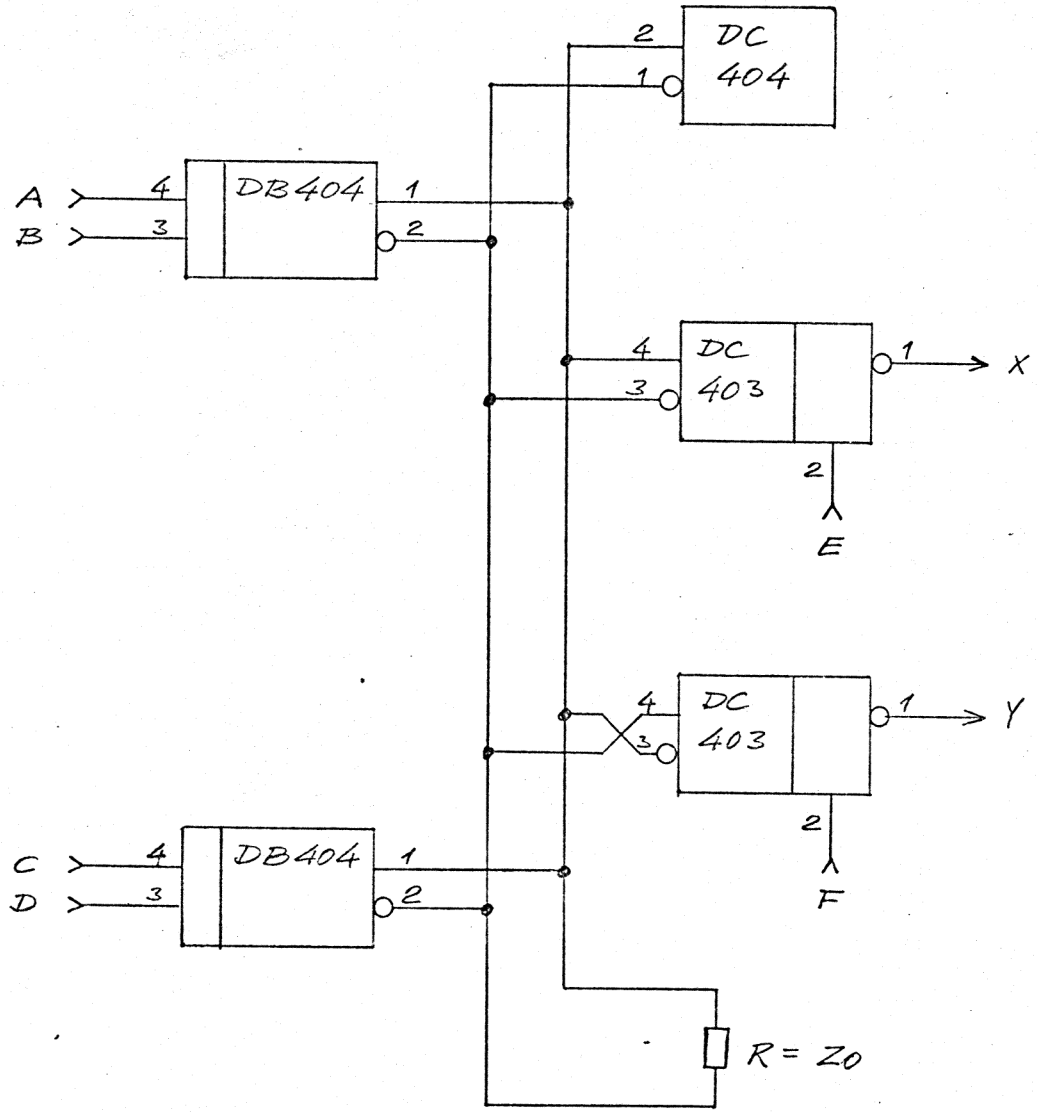
Designed by 24.9.68 MKP | Drawn by | Dwg. Office Check | Design Check | Replaces Dwg. No. | due to ECN | Replaced by Dwg. No.

RC doc. VB 139

RCdoc : VB

RCLM400 Functional Description

DB404, DB405, DC403, DC404



$$X = \neg(E \wedge (A \wedge B \vee C \wedge D)) = \neg E \vee \neg(A \wedge B \vee C \wedge D)$$

$$Y = \neg F \vee A \wedge B \vee C \wedge D$$

Unit: RCLM400	Designed 25/7-68 Pa.T.	Functional Descript.	Drawing No
A/S REGNECENTRALEN	Approved	DB404, DB405, DC403, DC404	Drawn by
	Checked		Checked
	Last Revision		Sheets / Sheet

rm. 304-250.2.67

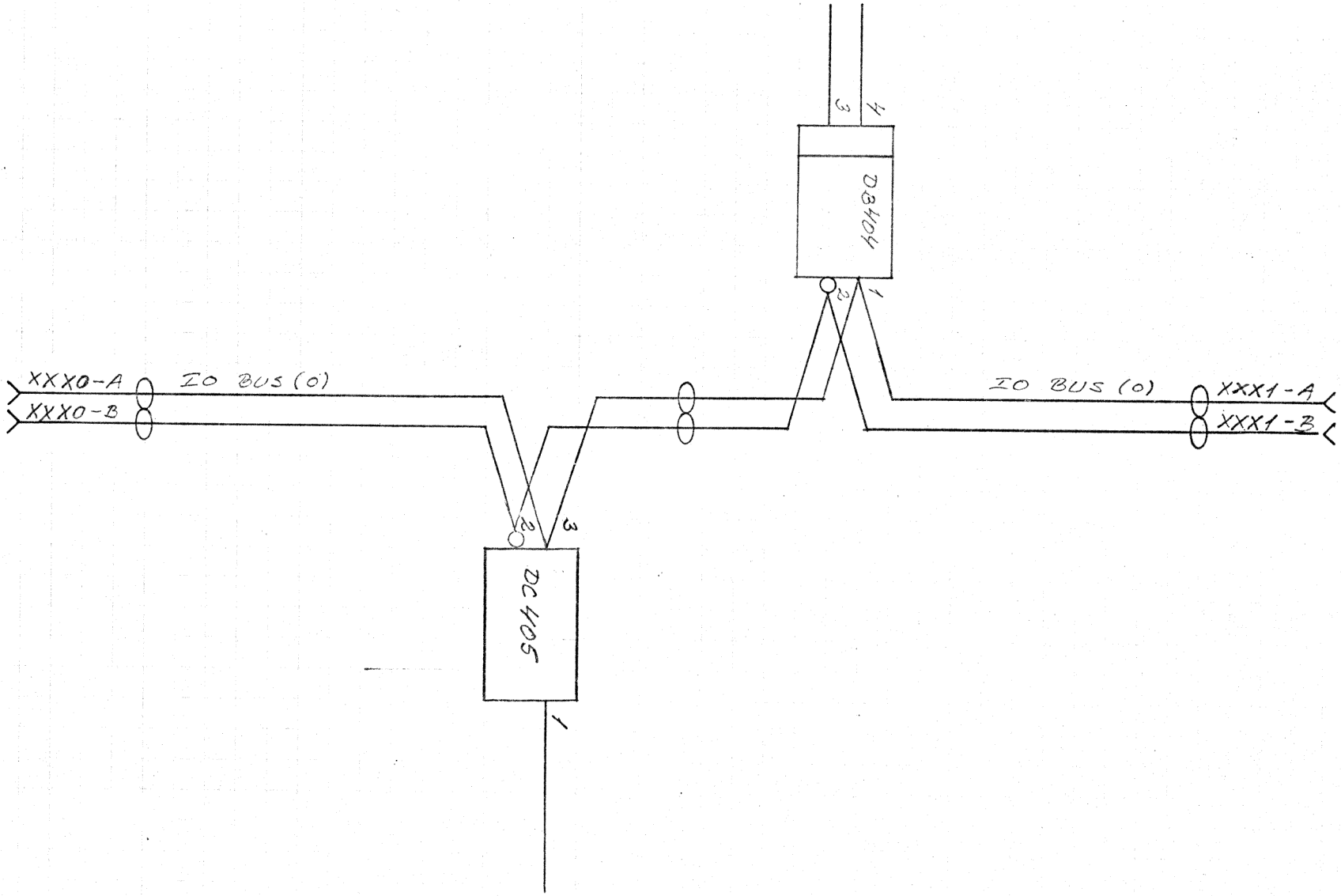
RC doc: VB 1

A/S REGNECENTRALEN	Designed by	Drawn by	Dwg. Office Check	Design Check	Replaces Dwg. No.	due to ECN	Replaced by Dwg. No.
	2.12.68 NSP.						

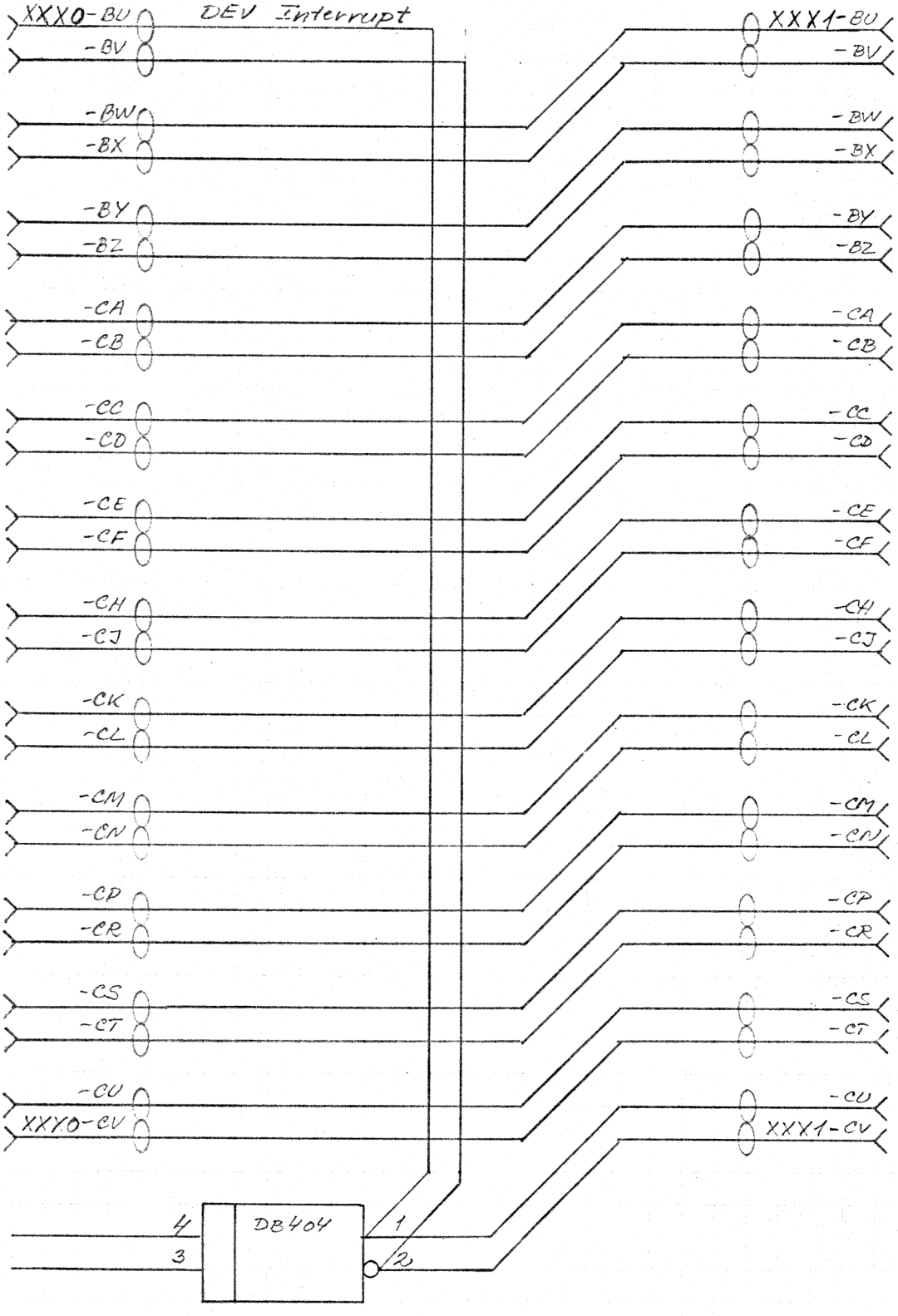
Unit: BUS OD

Dwg. No.:

Wiring of IO BUS (0) between Low Speed Bus Input and Output Connector.



AGF 1971



Unit	RC4000
Dwg. No.	

Wiring of DEV Interrupt and Interconnections between Low Speed Bus Connectors XXX0 and XXX1.

A/S REGNECENTRALEN

Designed by	Drawn by	Dwg. Office Check	Design Check	Replaces Dwg. No.	due to ECN	Replaced by Dwg. No.
31.10.68 MLP						

RC doc: VB 139

Receptable, type 8016 - 90, code

PIN		wired to	wired to	name
A	1			IO BUS (0)
B	2			
C	3			(1)
D	4			
E	5			(2)
F	6			
H	7			(3)
J	8			
K	9			(4)
L	10			
M	11			(5)
N	12			
P	13			(6)
R	14			
S	15			(7)
T	16			
U	17			(8)
V	18			
W	19			(9)
X	20			
Y	21			(10)
Z	22			
AA	23			(11)
AB	24			
AC	25			(12)
AD	26			
AE	27			(13)
AF	28			
AH	29			(14)
AJ	30			
AK	31			(15)
AL	32			
AM	33			(16)
AN	34			
AP	35			(17)
AR	36			
AS	37			(18)
AT	38			
AU	39			(19)
AV	40			
AW	41			(20)
AX	42			
AY	43			(21)
AZ	44			
BA	45			IO BUS (22)

RC doc: VB 165

Unit: RC4000

REGNE CENTRALEN

Designed 21.10.68 MsP

Approved

Checked

Last Revision

XXXO

LOW SPEED BUS INPUT CONNECTOR

Drawing No

Drawn by

Checked

2 Sheets | Sheet 1

Receptable, type 8016-90, code			
PIN	wired to	wired to	name
BB 46			
BC 47			IO BUS (23)
BD 48			
BE 49			IO Enable
BF 50			
BH 51			IO Address
BJ 52			
BK 53			IO Activate
BL 54			
BM 55			IO Transfer
BN 56			
BP 57			IO Connected
BR 58			
BS 59			IO Ready
BT 60			
BU 61			DEV Interrupt
BV 62			
BW 63	XXX1 - BU		
BX 64	- BV		
BY 65	- BW		
BZ 66	- BX		
CA 67	- BY		
CB 68	- BZ		
CC 69	- CA		
CD 70	- CB		
CE 71	- CC		
CF 72	- CD		
CH 73	- CE		
CJ 74	- CF		
CK 75	- CH		
CL 76	- CJ		
CM 77	- CK		
CN 78	- CL		
CP 79	- CM		
CR 80	- CN		
CS 81	- CP		
CT 82	- CR		
CU 83	- CS		
CV 84	XXX1 - CT		
CW 85			0V
CX 86			0V
CY 87			0V
CZ 88			0V
DA 89			SHIELD
DB 90			SHIELD

RC.doc: VB165

Unit: RC4000	Designed 21.10.68 MAP.	XXX0	Drawing No
A/S REGNECENTRALEN	Approved		Drawn by
	Checked	LOW SPEED BUS INPUT CONNECTOR	Checked
	Last Revision		2 Sheets / Sheet 2

Receptable, type 8016 - 90, code				
PIN		wired to	wired to	name
A	1			IO BUS (0)
B	2			
C	3			(1)
D	4			
E	5			(2)
F	6			
H	7			(3)
J	8			
K	9			(4)
L	10			
M	11			(5)
N	12			
P	13			(6)
R	14			
S	15			(7)
T	16			
U	17			(8)
V	18			
W	19			(9)
X	20			
Y	21			(10)
Z	22			
AA	23			(11)
AB	24			
AC	25			(12)
AD	26			
AE	27			(13)
AF	28			
AH	29			(14)
AJ	30			
AK	31			(15)
AL	32			
AM	33			(16)
AN	34			
AP	35			(17)
AR	36			
AS	37			(18)
AT	38			
AU	39			(19)
AV	40			
AW	41			(20)
AX	42			
AY	43			(21)
AZ	44			
BA	45			IO BUS (22)

RC doc: VB 165

88.8.5+A-20E.mod

Unit: RC4000

A/S REGNECENTRALEN

Designed 21.10.68 MSR

Approved

Checked

Last Revision

XXX1

LOW SPEED BUS OUTPUT CONNECTOR

Drawing No

Drawn by

Checked

2 Sheets | Sheet 1

Receptable, type 8016-90, code			
PIN	wired to	wired to	name
BB 46			
BC 47			IO BUS (2.3)
BD 48			
BE 49			IO Enable
BF 50			
BH 51			IO Address
BJ 52			
BK 53			IO Activate
BL 54			
BM 55			IO Transfer
BN 56			
BP 57			IO Connected
BR 58			
BS 59			IO Ready
BT 60			
BU 61	XXXO - BW		
BV 62	- BX		
BW 63	- BY		
BX 64	- BZ		
BY 65	- CA		
BZ 66	- CB		
CA 67	- CC		
CB 68	- CD		
CC 69	- CE		
CD 70	- CF		
CE 71	- CH		
CF 72	- CJ		
CH 73	- CK		
CJ 74	- CL		
CK 75	- CM		
CL 76	- CN		
CM 77	- CP		
CN 78	- CR		
CP 79	- CS		
CR 80	- CT		
CS 81	- CU		
CT 82	XXXO - CV		
CU 83			DEV Interrupt
CV 84			
CW 85			0V
CX 86			0V
CY 87			0V
CZ 88			0V
DA 89			SHIELD
DB 90			SHIELD

RC doc: VB165

Unit: RC4000	Designed 21.10.68 MSP.	XXX1	Drawing No
REGNE CENTRALEN	Approved	LOW SPEED BUS OUTPUT CONNECTOR	Drawn by
	Checked		Checked
	Last Revision		2 Sheets / Sheet 2

A/S REGNECENTRALEN

Replaced by Dwg. No. | due to ECN | Replaces Dwg. No. | Design Check | Dwg. Office Check | Drawn by | Designed by MSP 31.1.1969

DEVICE INTERRUPTS Arranged after LDC bus cabling, starting at plug 1061.	DEVICE ADDRESS	INTERRUPT LEVEL	TERMINALS OF PLUG 1021 Incoming Interrupts	Actual Interrupt Level Terminals
			M2 N3	
			M4 N5	
			M6 N7	
			M8 N9	
			M10 N11	
			M12 N13	
			M14 N15	
			O2 P3	
			O4 P5	
			O6 P7	
			O8 P9	
			O10 P11	
Interrupts from basic I/O devices:				
Paper Tape Reader	0		A3 B2	
Paper Tape Punch	1		A5 B4	
I/O Typewriter	2		A7 B6	
Interrupt Key	(2)		A11 B10	
Timer	3		A9 B8	

Interrupt Level Number	0	1	2	3	4	5	6	7	8	9	10	11
Actual Interrupt Level Terminals of Plug 1021	—	—	—	C3 D2	C5 D4	C7 D6	C9 D8	C11 D10	C13 D12	C15 D14	E3 F2	E5 F4
Interrupt Level Number	12	13	14	15	16	17	18	19	20	21	22	23
Actual Interrupt Level Terminals of Plug 1021	E7 F6	E9 F8	E11 F10	E13 F12	E15 F14	G3 H2	G5 H4	G7 H6	G9 H8	G11 H10	G13 H12	G15 H14

Unit: RC4000

Dwg. No.

Wiring of Interrupt Programming Plug 1021

Plug Identification:

1/2

RC doc: VB 139

AGF 1971

DEVICE INTERRUPTS Arranged after LDC bus cabling, starting at plug 1062.	DEVICE ADDRESS	INTERRUPT LEVEL	TERMINALS OF PLUG 1021 Incoming Interrupts	Actual Interrupt Level Terminals
			R2 S3	
			R4 S5	
			R6 S7	
			R8 S9	
			R10 S11	
			R12 S13	
			R14 S15	
			T2 U1	
			T4 U3	
			T6 U5	
			T8 U7	
			T10 U9	
Interrupts from basic I/O devices:				
Paper Tape Reader	0		A3 B2	
Paper Tape Punch	1		A5 B4	
I/O Typewriter	2		A7 B6	
Interrupt Key	(2)		A11 B10	
Timer	3		A9 B8	

Interrupt Level Number	0	1	2	3	4	5	6	7	8	9	10	11
Actual Interrupt Level Terminals of Plug 1021	—	—	—	C3 D2	C5 D4	C7 D6	C9 D8	C11 D10	C13 D12	C15 D14	E3 F2	E5 F4
Interrupt Level Number	12	13	14	15	16	17	18	19	20	21	22	23
Actual Interrupt Level Terminals of Plug 1021	E7 F6	E9 F8	E11 F10	E13 F12	E15 F14	G3 H2	G5 H4	G7 H6	G9 H8	G11 H10	G13 H12	G15 H14

A/S REGNECENTRALEN

Designed by MSP. 31.1.1969

Drawn by

Dwg. Office Check

Design Check

Replaces Dwg. No.

due to ECN

Replaced by Dwg. No.

Unit: RC4000

Dwg. No.

Wiring of Interrupt Programming Plug 1021

Plug Identification:

2/2

RC doc: VB 139

AGF 1971

15.1.1969.
Mogens Strange

RC4000 HIGH SPEED DATA CHANNEL

HDC Data Buslines

HDC BUSout(0:23)

When HDC GiData = 1 in an output operation, a data word is available on the buslines HDC BUSout(0:23).

HDC BUSin(0:23)

These buslines are used for transfer of internal store address, a read/write command, and a data word from device controller to store controller. The store address and the read/write command are gated to the buslines when HDC GiAddr = 1. The data word is gated to the buslines when HDC GiData = 1.

HDC Control Signals

HDC GiAddr
(Address Control Signal)

The signal indicates the address phase. When HDC GiAddr = 1, the read/write command and the internal store address must be gated to the buslines HDC BUSin(6:23).

HDC GiData
(Data Control Signal)

The signal indicates the data phase. During output operations, HDC GiData = 1 indicates that a data word is available on the buslines HDC BUSout(0:23). During input operations, HDC GiData = 1 indicates that the data word to be transferred to the internal store must be gated to the buslines HDC BUSin(0:23).

When HDC GiData returns to 0, the input or output operation is completed.

HDC Input Signals

CYS Request
(Cycle Request)

The signal is a request signal for transfer of a data word from the internal store to the device buffer or vice versa.

CYS Read
(Read/Write)

The signal specifies the data flow direction. CYS Read = 1 (read command) if the data word has to be transferred from internal store to device buffer. CYS Read must be gated to the busline HDC BUSin(23) when HDC GiAddr = 1.

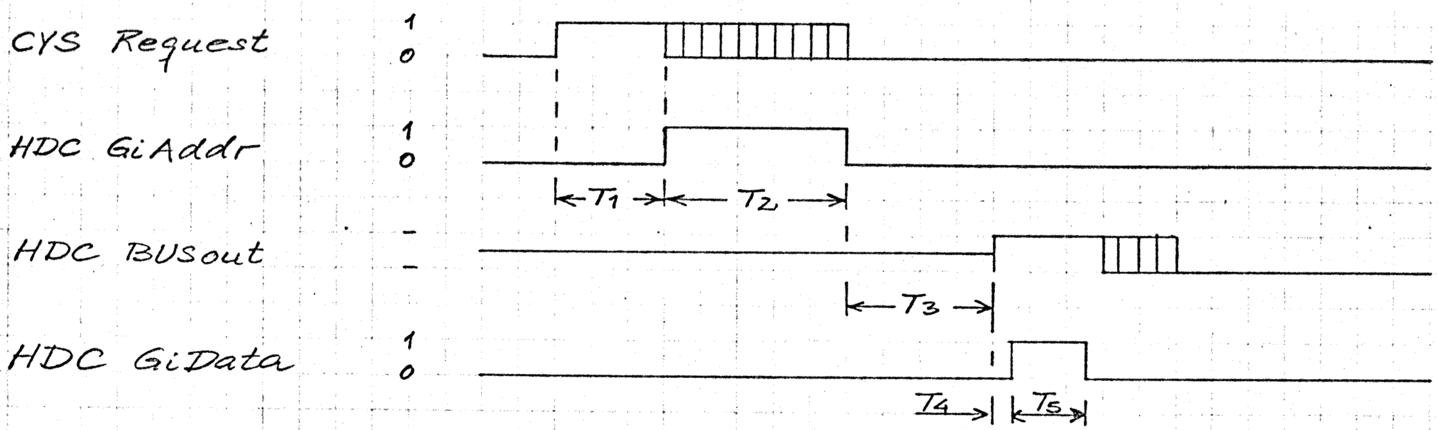
CYS Address(6:22)
(Store Address)

The internal store address is specified by CYS Address(6:22), which is generated in the device controller. CYS Address(6:22) must be gated to the buslines HDC BUSin(6:22) when HDC GiAddr = 1.

CYS Data(0:23)
(Input Data Word)

This is the data word to be transferred to the internal store. CYS Data(0:23) must be gated to the buslines HDC BUSin(0:23) when HDC GiData = 1.

Read Cycle



T_1 : Min. 200 ns

Max: ∞ , depends on the priority level of the device .

T_2 : Approximately 1 μs

T_3 : Min. 0

Max. 6 μs

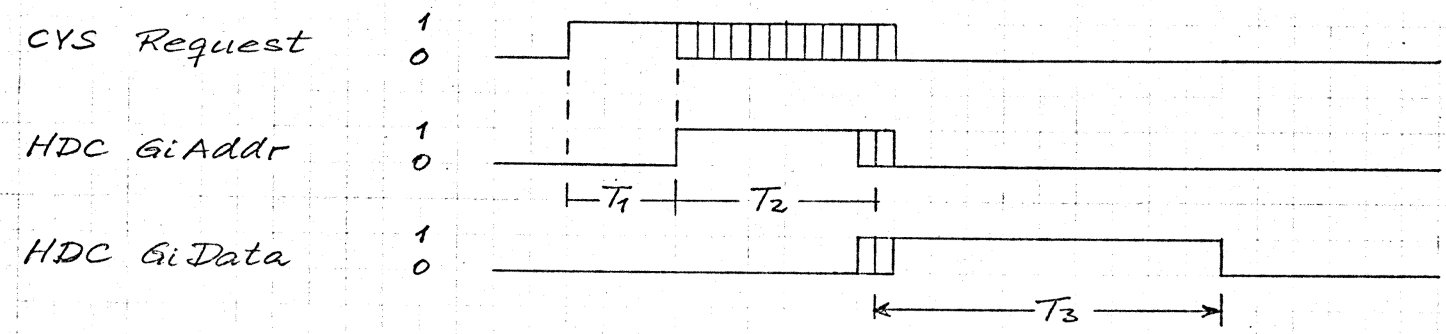
T_4 : Min : 90 ns

T_5 : 250 ns

Unit: RC 4000	Designed 29.10.68 [illegible]	HDC Timing	Drawing No
A/S REGNECENTRALEN	Approved		Drawn by
	Checked		Checked
	Last Revision		2 Sheets · Sheet 1

Form. 304-250.12.67

Write Cycle



T_1 : Min : 200 ns

Max : ∞ , depends on the priority level of the device.

T_2 : Approximately 1 μs

T_3 : Min : Approximately 1 μs

Max : 4 μs

Form. 304-250.12.67

Unit: RC 4000	Designed 29 10 68 Acy	HDC Timing	Drawing No
A/S REGNECENTRALEN	Approved		Drawn by
	Checked		Checked
	Last Revision		2 Sheets . Sheet 2

RC doc: VB 139

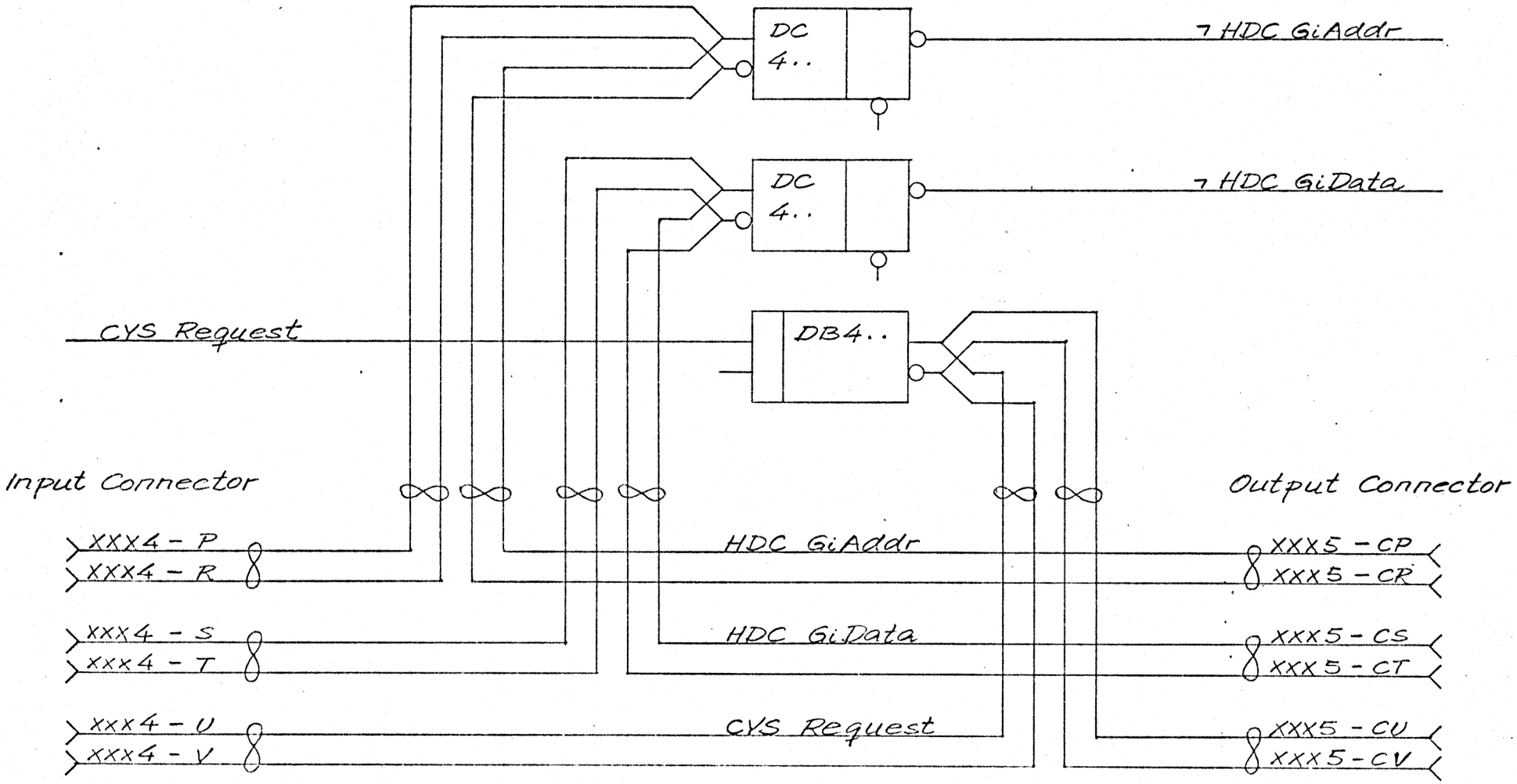
A/S REGNECENTRALEN	Designed by	Drawn by	Dwg. Office Check	Design Check	Replaces Dwg. No.	due to ECN	Replaced by Dwg. No.
	241068 NA.T.						

Unit: RC4000

Dwg. No.: HDC

HIGH SPEED DATA CHANNEL

Wiring of: HDC GiAddr, HDC GiData, and CYS Request



HDC BUSin	CYS Address	CYS Data
0	—	0
1	—	1
2	—	2
3	—	3
4	—	4
5	—	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	CYS Read	23

Replaced by Dwg. No.

due to ECN

Replaces Dwg. No.

Design Check

Dwg. Office Check

Drawn by

Designed by 24 10 68 M.J.

A/S REGNECENTRALEN

RC doc: VB 139

Unit RC4000

Dwg. No.

HIGH SPEED DATA CHANNEL

HDC

AGF 1971

Receptable, type 8016 - 90, code			
PIN	wired to	wired to	name
A 1			HDC BUS out (0)
B 2			
C 3			HDC BUS out (1)
D 4			
E 5			HDC BUS out (2)
F 6			
H 7			HDC BUS out (3)
J 8			
K 9			HDC BUS out (4)
L 10			
M 11			HDC BUS out (5)
N 12			
P 13			HDC BUS out (6)
R 14			
S 15			HDC BUS out (7)
T 16			
U 17			HDC BUS out (8)
V 18			
W 19			HDC BUS out (9)
X 20			
Y 21			HDC BUS out (10)
Z 22			
AA 23			HDC BUS out (11)
AB 24			
AC 25			HDC BUS out (12)
AD 26			
AE 27			HDC BUS out (13)
AF 28			
AH 29			HDC BUS out (14)
AJ 30			
AK 31			HDC BUS out (15)
AL 32			
AM 33			HDC BUS out (16)
AN 34			
AP 35			HDC BUS out (17)
AR 36			
AS 37			HDC BUS out (18)
AT 38			
AU 39			HDC BUS out (19)
AV 40			
AW 41			HDC BUS out (20)
AX 42			
AY 43			HDC BUS out (21)
AZ 44			
BA 45			HDC BUS out (22)

RC doc: VB 165

Unit: RC 4000

A/S BBCNB CENTRALEN

Designed 24 1068 Ha.J.

Approved

Checked

Last Revision

HDC

INPUT CONNECTOR

XXX2

Drawing No

Drawn by

Checked

2 Sheets | Sheet 1

Receptable, type 8016-90, code			
PIN	wired to	wired to	name
BB 46			
BC 47			HDC BUS.out (23)
BD 48			
BE 49			HDC BUSin (0)
BF 50			
BH 51			HDC BUSin (1)
BJ 52			
BK 53			HDC BUSin (2)
BL 54			
BM 55			HDC BUSin (3)
BN 56			
BP 57			HDC BUSin (4)
BR 58			
BS 59			HDC BUSin (5)
BT 60			
BU 61			HDC BUSin (6)
BV 62			
BW 63			HDC BUSin (7)
BX 64			
BY 65			HDC BUSin (8)
BZ 66			
CA 67			HDC BUSin (9)
CB 68			
CC 69			HDC BUSin (10)
CD 70			
CE 71			HDC BUSin (11)
CF 72			
CH 73			HDC BUSin (12)
CJ 74			
CK 75			HDC BUSin (13)
CL 76			
CM 77			HDC BUSin (14)
CN 78			
CP 79			HDC BUSin (15)
CR 80			
CS 81			HDC BUSin (16)
CT 82			
CU 83			HDC BUSin (17)
CV 84			
CW 85			0 Volt
CX 86			0 Volt
CY 87			0 Volt
CZ 88			0 Volt
DA 89			SHIELD
DB 90			SHIELD

RC doc: VB165

Unit: RC4000

BEGNE CENTRALEN

Designed 24-10 68 Pa.J.

Approved

Checked

Last Revision

HDC.

INPUT CONNECTOR

XXX 2

Drawing No

Drawn by

Checked

2 Sheets | Sheet 2

Receptable, type 8016 - 90, code

PIN	wired to	wired to	name
A 1			HDC BUSout (0)
B 2			
C 3			(1)
D 4			
E 5			(2)
F 6			
H 7			(3)
J 8			
K 9			(4)
L 10			
M 11			(5)
N 12			
P 13			(6)
R 14			
S 15			(7)
T 16			
U 17			(8)
V 18			
W 19			(9)
X 20			
Y 21			(10)
Z 22			
AA 23			(11)
AB 24			
AC 25			(12)
AD 26			
AE 27			(13)
AF 28			
AH 29			(14)
AJ 30			
AK 31			(15)
AL 32			
AM 33			(16)
AN 34			
AP 35			(17)
AR 36			
AS 37			(18)
AT 38			
AU 39			(19)
AV 40			
AW 41			(20)
AX 42			
AY 43			(21)
AZ 44			
BA 45			HDC BUSout (22)

Unit: RC4000	Designed 241068 Pa.J.	HDC OUTPUT CONNECTOR XXX3	Drawing No Drawn by Checked
A/S REGNE CENTRALEN	Approved Checked Last Revision		2 Sheets / Sheet 1

Receptable, type 8016-90, code			
PIN	wired to	wired to	name
BB 46			
BC 47			HDC BUSout (23)
BD 48			
BE 49			HDC BUSin (0)
BF 50			
BH 51			HDC BUSin (1)
BJ 52			
BK 53			(2)
BL 54			
BM 55			(3)
BN 56			
BP 57			(4)
BR 58			
BS 59			(5)
BT 60			
BU 61			(6)
BV 62			
BW 63			(7)
BX 64			
BY 65			(8)
BZ 66			
CA 67			(9)
CB 68			
CC 69			(10)
CD 70			
CE 71			(11)
CF 72			
CH 73			(12)
CJ 74			
CK 75			(13)
CL 76			
CM 77			(14)
CN 78			
CP 79			(15)
CR 80			
CS 81			(16)
CT 82			
CU 83			HDC BUSin (17)
CV 24			
CW 85			0 Volt
CX 86			0 Volt
CY 87			0 Volt
CZ 88			0 Volt
DA 89			SHIELD
DB 90			SHIELD

RC doc: VB165

Unit: RC4000	Designed 241068 PA.J.	HDC OUTPUT CONNECTOR XXX3	Drawing No
A/S REGNECENTRALEN	Approved		Drawn by
	Checked		Checked
	Last Revision		2 Sheets / Sheet 2

Receptable, type 8016 - 90, code

PIN		wired to	wired to	name
A	1			HDC BUSin (18)
B	2			
C	3			HDC BUSin (19)
D	4			
E	5			HDC BUSin (20)
F	6			
H	7			HDC BUSin (21)
J	8			
K	9			HDC BUSin (22)
L	10			
M	11			HDC BUSin (23)
N	12			
P	13			HDC GiAddr
R	14			
S	15			HDC GiData
T	16			
U	17			CYS Request
V	18			
W	19	XXX5 - P		
X	20	XXX5 - R		
Y	21	XXX5 - S		
Z	22	XXX5 - T		
AA	23	XXX5 - U		
AB	24	XXX5 - V		
AC	25	XXX5 - W		
AD	26	XXX5 - X		
AE	27	XXX5 - Y		
AF	28	XXX5 - Z		
AH	29	XXX5 - AA		
AJ	30	XXX5 - AB		
AK	31	XXX5 - AC		
AL	32	XXX5 - AD		
AM	33	XXX5 - AE		
AN	34	XXX5 - AF		
AP	35	XXX5 - AH		
AR	36	XXX5 - AJ		
AS	37	XXX5 - AK		
AT	38	XXX5 - AL		
AU	39	XXX5 - AM		
AV	40	XXX5 - AN		
AW	41	XXX5 - AP		
AX	42	XXX5 - AR		
AY	43	XXX5 - AS		
AZ	44	XXX5 - AT		
BA	45	XXX5 - AU		

RC doc: VB 165

Unit: RC4000

§ RECNE CENTRALEN

Designed 241068 Pa.J.

Approved

Checked

Last Revision

HDC

INPUT CONNECTOR

XXX4

Drawing No

Drawn by

Checked

2 Sheets

Sheet 1

Receptable, type 8016-90, code			
PIN	wired to	wired to	name
BB 46	XXX5 - AV		
BC 47	XXX5 - AW		
BD 48	XXX5 - AX		
BE 49	XXX5 - AY		
BF 50	XXX5 - AZ		
BH 51	XXX5 - BA		
BJ 52	XXX5 - BB		
BK 53	XXX5 - BC		
BL 54	XXX5 - BD		
BM 55	XXX5 - BE		
BN 56	XXX5 - BF		
BP 57	XXX5 - BH		
BR 58	XXX5 - BJ		
BS 59	XXX5 - BK		
BT 60	XXX5 - BL		
BU 61	XXX5 - BM		
BV 62	XXX5 - BN		
BW 63	XXX5 - BP		
BX 64	XXX5 - BR		
BY 65	XXX5 - BS		
BZ 66	XXX5 - BT		
CA 67	XXX5 - BU		
CB 68	XXX5 - BV		
CC 69	XXX5 - BW		
CD 70	XXX5 - BX		
CE 71	XXX5 - BY		
CF 72	XXX5 - BZ		
CH 73	XXX5 - CA		
CJ 74	XXX5 - CB		
CK 75	XXX5 - CC		
CL 76	XXX5 - CD		
CM 77	XXX5 - CE		
CN 78	XXX5 - CF		
CP 79	XXX5 - CH		
CR 80	XXX5 - CJ		
CS 81	XXX5 - CK		
CT 82	XXX5 - CL		
CU 83	XXX5 - CM		
CV 84	XXX5 - CN		
CW 85			0 Volt
CX 86			0 Volt
CY 87			0 Volt
CZ 88			0 Volt
DA 89			SHIELD
DB 90			SHIELD

RC doc: VB165

Unit: RC4000

A/S REGNECENTRALEN

Designed 241068 Hg.J.

Approved

Checked

Last Revision

HDC

INPUT CONNECTOR

XXX4

Drawing No

Drawn by

Checked

2 Sheets | Sheet 2

Receptable, type 8016 - 90, code

PIN		wired to	wired to	name
A	1			HDC BUS in (18)
B	2			
C	3			HDC BUS in (19)
D	4			
E	5			(20)
F	6			
H	7			(21)
J	8			
K	9			(22)
L	10			
M	11			HDC BUS in (23)
N	12			
P	13	XXX4 - W		
R	14	XXX4 - X		
S	15	- Y		
T	16	- Z		
U	17	- AA		
V	18	- AB		
W	19	- AC		
X	20	- AD		
Y	21	- AE		
Z	22	- AF		
AA	23	- AH		
AB	24	- AJ		
AC	25	- AK		
AD	26	- AL		
AE	27	- AM		
AF	28	- AN		
AH	29	- AP		
AJ	30	- AR		
AK	31	- AS		
AL	32	- AT		
AM	33	- AU		
AN	34	- AV		
AP	35	- AW		
AR	36	- AX		
AS	37	- AY		
AT	38	- AZ		
AU	39	- BA		
AV	40	- BB		
AW	41	- BC		
AX	42	- BD		
AY	43	- BE		
AZ	44	- BF		
BA	45	XXX4 - BH		

RC doc: VB 165

Unit: RC 4000

§ REGNECENTRALEN

Designed 251068 AAJ

Approved

Checked

Last Revision

HDC OUTPUT CONNECTOR XXX5

Drawing No

Drawn by

Checked

2 Sheets | Sheet 1

Receptable, type 8016-90, code

PIN		wired to	wired to	name
BB	46	XXX4 - BJ		
BC	47	XXX4 - BK		
BD	48	- BL		
BE	49	- BM		
BF	50	- BN		
BH	51	- BP		
BJ	52	- BR		
BK	53	- BS		
BL	54	- BT		
BM	55	- BU		
BN	56	- BV		
BP	57	- BW		
BR	58	- BX		
BS	59	- BY		
BT	60	- BZ		
BU	61	- CA		
BV	62	- CB		
BW	63	- CC		
BX	64	- CD		
BY	65	- CE		
BZ	66	- CF		
CA	67	- CH		
CB	68	- CJ		
CC	69	- CK		
CD	70	- CL		
CE	71	- CM		
CF	72	- CN		
CH	73	- CP		
CJ	74	- CR		
CK	75	- CS		
CL	76	- CT		
CM	77	XXX4 - CU		
CN	78	XXX4 - CV		
CP	79			HDC Gi Addr
CR	80			
CS	81			HDC Gi Data
CT	82			
CU	83			CYS Request
CV	84			
CW	85			0 Volt
CX	86			0 Volt
CY	87			0 Volt
CZ	88			0 Volt
DA	89			SHIELD
DB	90			SHIELD

RC doc: VB165

Unit: RC4000

A/S BEGE CENTRALEN

Designed 251068 AAJ.

Approved

Checked

Last Revision

HDC

OUTPUT CONNECTOR

XXX5

Drawing No

Drawn by

Checked

2 Sheets | Sheet 2