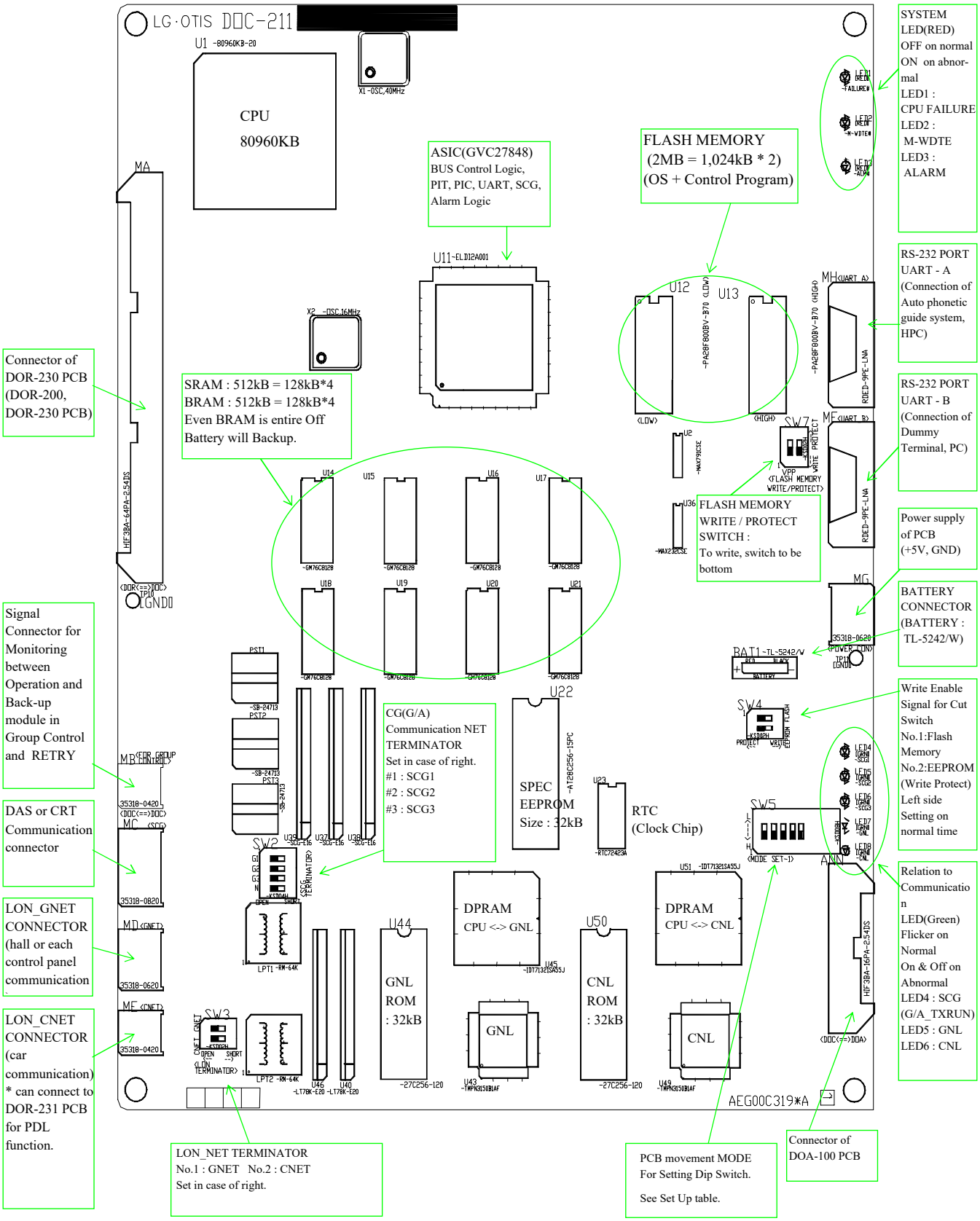
DOC-211 PCB

1. Outline Drawing



2. Main Function

NO	MAIN FUNCTION AND CIRCUIT	REMARKS
1	OPERATION CONTROL	FUNCTION OF EXISTING MAIN MICOM
2	SPEED CONTROL	FUNCTION OF EXISTING Slave MICOM
3	MUTUAL SUPERVISION AND RETRY I/O	DPC-120 : 120~150m/min(DI2)
	1) E/L:DOC-211↔DPC-120 or DPC-310 MUTUAL SUPERVISI	DPC-310 : 180~420m/min(DS4)
	2) DGS-700 : DOC-211 OPERATION ↔ STAND-BY MUTUAL SUPERVISION	
4	+5[V] POWER INPUT FAILURE DETECT (+5 [V] POWER SUPERVISORY CIRCUIT)(If +5 [V] OR +48 [V] INPUT POWER FAILURE IS DETECTED, CPU POWER FAILURE INTERRUPT WILL OCCUR)	+48[V] FAILURE CIRCUIT DETECTING CIRCUIT IS ON DOR-231 PCB
5	WATCHDOG TIMER(WDT) FUNCTION => RESET WDT BY 5ms CYCLE	Expire Time 21 [ms]
6	BATTERY BACKUP CIRCUIT (SUPPLYING POWER TO BRAM AND RTC CHIP DURING POWER FAILURE)	BRAM : Battery Backup SRAMRTC : Real Time Clock(Clock Chip)
7	RESET CIRCUIT (DOC-211 PCB RESET)	Maxim MAX791
8	CLOCK (RTC) FUNCTION	Epson RTC72423A
9	STORING CONTROL SPEC CONTROL DATA ON EEPROM	EEPROM(AT28C256 : 32 kByte)
10	STORING OS & CONTROL PROGRAM ON FLASH MEMORY(*	Flash Memory(PA28F800*2EA:2MByte)
11	EEPROM WRITE PROTECTION FUNCTION	SWITCH USE * SEE SWITCH SETTING TABLE OF DOC-211 PCB
12	FLASH MEMORY WRITE PROTECTION FUNCTION	SWITCH USE * SEE SWITCH SETTING TABLE OF DOC-211 PCB
13	ADDRESS DECODE AND BUS CONTROL CIRCUIT	* ASIC(GVC27848)
14	INTERRUPT INPUT AND PROCESS(CPU : 2 PORTS, PIC : 13 PORTS(ONLY 10 PORTS USED))	PIC : Programmable Interrupt Controller * ASIC(GVC27848)** See DOC-211 PCB Interupt Source table
15	SYSTEM TIMER BY PIT (OS TASK MANAGEMENT SYSTEM CLOCK GENERATION)	PIT:Programmable Interval Timer * ASIC(GVC27848)
16	Error Code Generation Circuit (Address Error)[On occurrence of an Error, Disabling DOR-23X PCB Output Port Disable]	When occur Address Error : LED ALM# (LED3) ON.
17	2 Ports of RS232 Serial Comm. by UART[Serial Communication with Dummy Terminal, Auto phonetic guide system, HPC]	UART : Universal Asynchronous Receiver/Transmitter* ASIC(GVC27848)

NO	MAIN FUNCTION AND CIRCUIT	REMARKS
18	LON(GNL) Serial Communication Network(GNET) 1) CP <--> HALLs 2) CP <--> MP (DGS-700) 3) CP <--> CP (NPLEX) Serial Communication Network	GNL : Group Network Lon (TMPN3150B1AF) NPLEX : DUPLEX
19	LON(CNL) Serial Communication Network(CNET) (CP↔CAR Serial Communication Network)	CNL : Car Network Lon (TMPN3150B1AF)
20	LON(GNL, CNL) Data transmitting, receiving with CPU(80960KB), (Each communicates via DPRAM (Dual Port RAM)) ※ CPU(80960KB) ↔ DPRAM(U45) ↔ LON(GNL, U43) ※ CPU(80960KB) ↔ DPRAM(U51) ↔ LON(CNL, U49)	
21	Serial Communication Network of DAS, CRT, VMD Management Using SCG: 3port	SCG : Serial Communication G/A
22	PCB Condition (FAILURE, M-WDTe, ALARM) Indication * Red LED used : ON indicates Trouble	*** See Table of DOC-211 PCB LED Indication
23	LON(GNL, CNL) and SCG Communication Condition Indication * Green LED used : Flicking indicates Normal	*** See Table of DOC-211 PCB LED Indication
24	Signal transmitting, receiving with DOR-231 PCB(Buffer & LAD(Local Address/Data) BUS used)	
25	Signal transmitting, receiving with DPC PCB(Communicating via PCB DPRAM(Dual Port RAM) on DOR-231 PCB)DOC-211 <--> DOR-23X DPRAM <--> DPC-120 or DPC-3X0	
26	DOA-100 PCB Interface 1) 4X4 KEY PAD Value Read 2) Each Data Display on LCD	DOA-100 : Functions of Annunciator

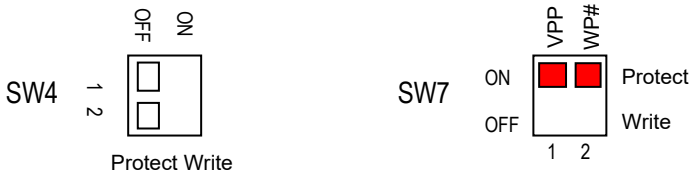
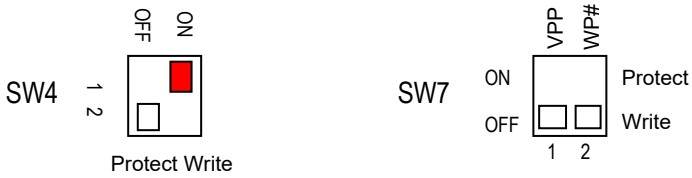
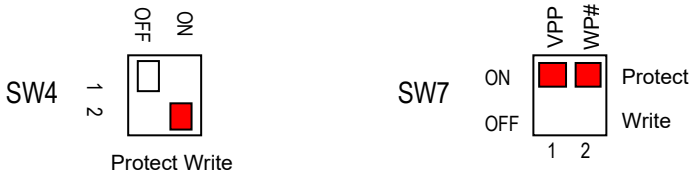
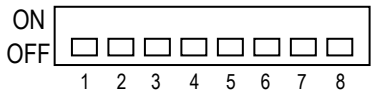
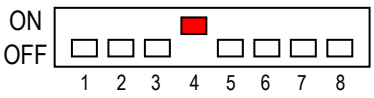
(**) ROMs on DOC-211 PCB are equal to ROMs on DOC-200 PCB except Flash Memory.

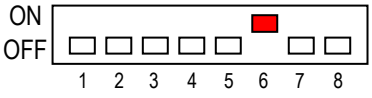
(1) Flash Memory of DOC-200 PCB : PA28F400B5-B60(512KB) * 2EA Asy. DWG. No.: 3X03455*A, *B

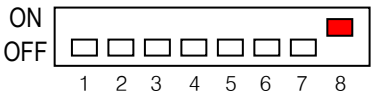
2) Flash Memory of DOC-211 PCB : PA28F800B5-B70(1,024KB) *2EA Asy. DWG. No.: AEG00C333*A, *B

3. Table of Switches, Interrupt Source & LED

3.1 Table1 - Switches Setting table of DOC-211 PCB switch

<table>
<tr><th>SW No.</th><th>Location</th><th>Use</th><th colspan="2">Setting</th></tr>
<tr><td rowspan="2">SW4</td><td rowspan="2">Middle
Lower &
Right</td><td rowspan="3">Flash Memory
&
EEPROM Control</td><td>Normal</td><td> 
</td></tr>
<tr><td>Flash
Memory
Write</td><td> 
</td></tr>
<tr><td>SW7</td><td>Middle
Right</td><td>Spec
Wtite</td><td> 
</td></tr>
<tr><td>SW5</td><td>Bottom
Right</td><td>Function Definition</td><td>Normal</td><td> 
</td></tr>
<tr><td></td><td></td><td></td><td>Error
Data
Control</td><td> 

Erasing Error Data on Power-ON (includingHOLD Type Error)</td></tr>
<tr><td></td><td></td><td></td><td>Rescue
Operation
on Return</td><td> 

Carrying out Rescue Operation unconditionally on Return</td></tr>
<tr><td></td><td></td><td></td><td>Commu-
nication
Control</td><td> 

Stopping Communication with LON of Hall and Group Network</td></tr>
<tr><td colspan="5"><Caution> 1. Before Power-ON, check if SW4,SW5 & SW7 is correct
2. Check if SW4,SW7 are normal condition (Protect)
3. CRT ID in DOC-211 PCB can be set at spec Address "0185" not Dip SW6</td></tr>
</table>

SW6 are not applied on DOC-211 PCB

Lift ID(CRT) is set by spec table