



RM 212/420

12 bay SAS/SATA backplane specification

1. PCB尺寸 : 432.0 mm X 72.9 mm X 2.4 mm
2. Drive interface : SAS III / SATA III (6G), backward compatible
3. MINISAS CONNECTOR : 3
4. DEVICE : 12 (29PIN) SAS/SATA
5. DC POWER SUPPLY : 4
6. SIGNAL INPUT CONNECTOR : 1
 - (A) ACCESS SIGNAL INPUT (FROM HOST)
 - (B) HDD FAIL SIGNAL INPUT (FROM HOST)
7. HDD ACCESS SIGNAL DETECTING : AUTO
 - (A) USE SAS HDD
 - (B) USE SATA HDD
8. ACCESS SIGNAL SETTING : BY JUMPER
 - (A) ACCESS SIGNAL FROM HOST
 - (B) ACCESS SIGNAL FROM DEVICE
9. HDD POWER / ACCESS /FAIL LED : 12
 - (A) WHEN HDD INSERT ----- ACTIVE (BLUE)
 - (B) WHEN HDD R/W ----- FLASH (BLUE)
 - (C) WHEN HDD FAIL ----- ACTIVE (RED)
10. SGPIO SETTING : BY JUMPER
 - (A) ENABLE
 - (B) DISABLE
11. Current protection: AUTO

12. FAN DETECT : 4 (PWM TYPE)

(A) RPM = 30% \leq 25°C

RPM =100% \geq 45°C

13. TEMPERATURE DETECT : ON BOARD SENSOR

(A) Setting FAIL = 45°C

* 48°C alarm warning , 44°C reset

(B) Setting FAIL = 55°C

*58°C alarm warning , 54°C reset

14. SIGNAL OUTPUT :

(A) FAN FAIL LED

* WHEN FAN FAIL ---- ACTIVE

(B) TEMPERATURE FAIL LED

* WHEN TEMPERATURE FAIL ---- ACTIVE

(C) ALARM RESET

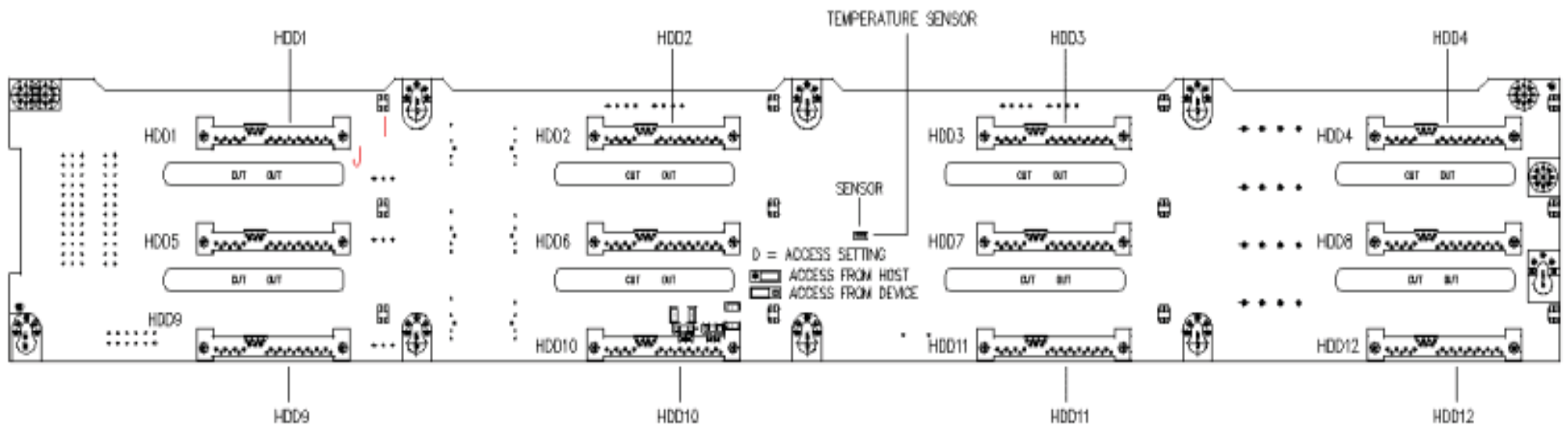
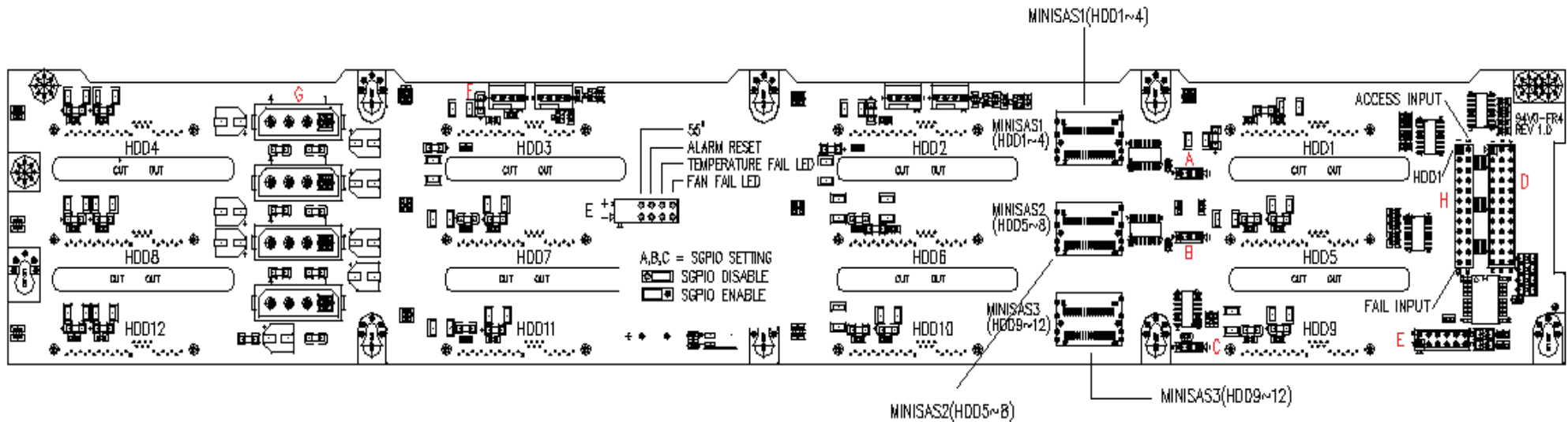
* KEEP FAIL LED.

15 . ALARM BUZZER :

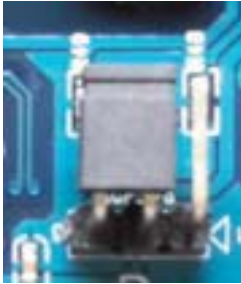
(A) FAN FAIL ----- B ---- B----B----B

(B) TEMPERATURE FAIL ----BB----BB----BB----BB

2. Function explains



A&B&C = SPIO SETTING



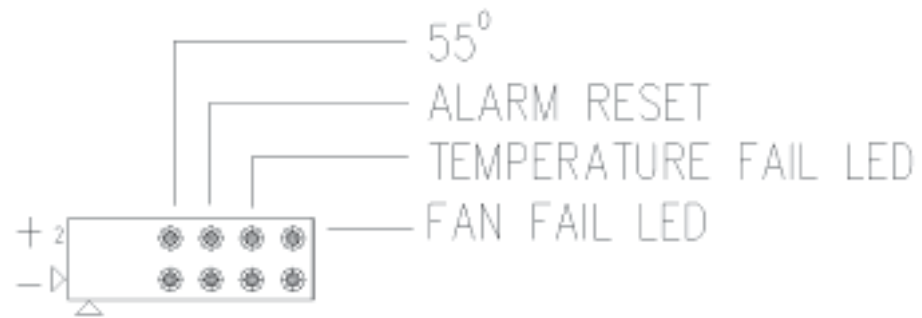
-  SGPIO DISABLE
-  SGPIO ENABLE

D = ACCESS SETTING

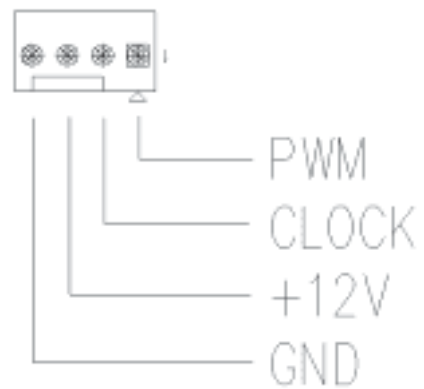


-  ACCESS FROM HOST
-  ACCESS FROM DEVICE

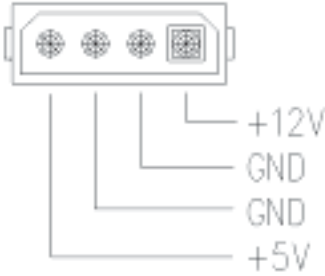
E = FAIL SIGNAL OUTPUT



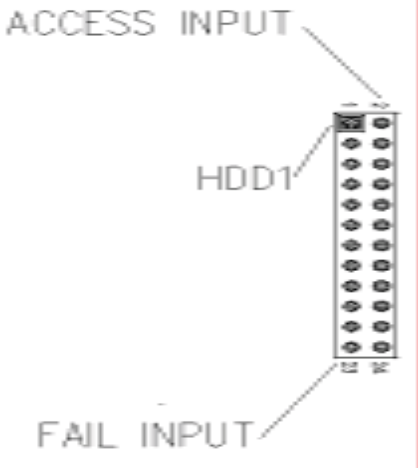
F= FAN CONNECTOR



G = DC POWER CONNECTOR



H = SIGNAL INPUT (FROM HOST)



I = LED

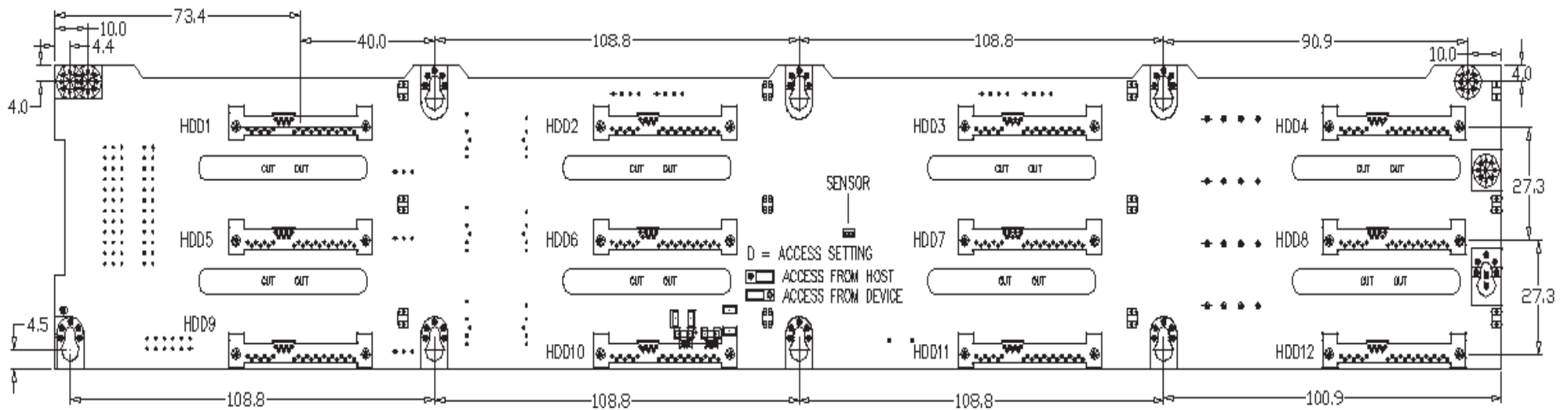
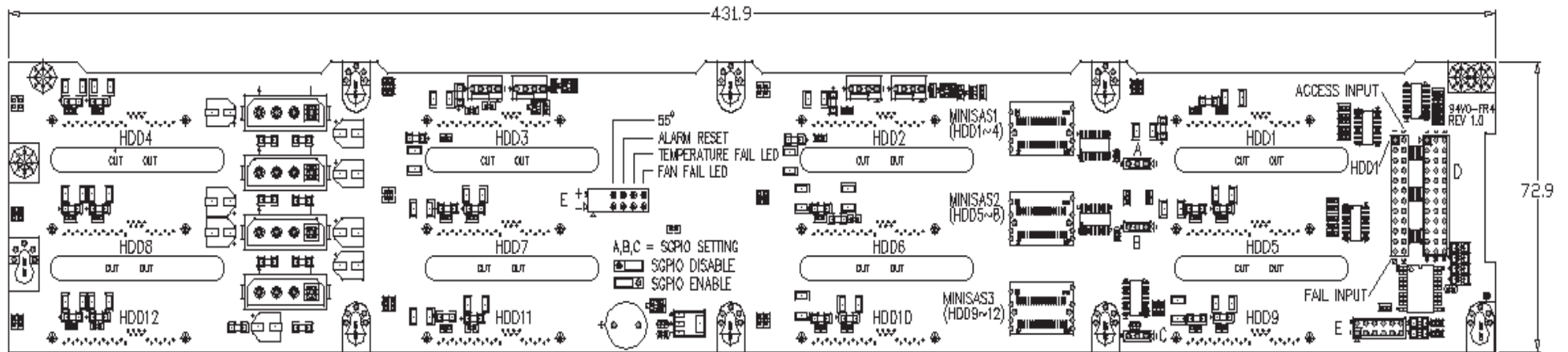


- (A) WHEN HDD INSERT ----- ACTIVE (GREEN)↵
- (B) WHEN HDD R/W ----- FLASH (GREEN)↵
- (C) WHEN HDD FAIL ----- ACTIVE (RED)↵

J = HDD CONNECTOR (SATA/SAS)



3. Organization size



4. Others

PCB MATERIALS

NAN YA PLASTICS CORPORATION COPPER CLAD LAMINATE QUALITY TEST REPORT

2, Chung-Yang Ind. Park,
Hsin-Yang Hsiang,
Jiayih, Taiwan

TEL: (05)3772111 FAX: (05)3773585

DATE: 2013/04/27

PALLET NO:

CUSTOMER: 永祥電子

ORDER NO: HC4F1L71

LOT NO: 8324445M

MATERIAL SPEC.: NP-140TL 1/1 1.10mm 1240mm x 1020mm WLCFGSH (OVERALL THICKNESS)

IPC DESIGNATION: L21 040D EXC H1/H1 C/A 48.8" x 40.5" (F x G)

L21 040D IN H1/H1 C/A 48.8" x 40.5" (F x G)

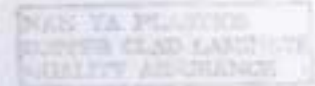
REQUIREMENT: IPC-4101C

UL FILE: E98883

GLASS FIBER: NAN YA Hsin-Kang Taiwan

COPPER FOIL: NAN YA Hsin-Kang Taiwan

EPOXY RESIN: NAN YA Mellino Taiwan



TEST ITEM	UNIT	TEST METHOD	SPECIFICATION	RESULTS
VISUALS	-	IPC-4101C	A	OK
SURFACE & SUBSURFACE	-	IPC-4101C	A	OK
METAL THICKNESS(UP)	µm	IPC-4101C	100:30.0-37.7	33.2
METAL THICKNESS(DOWN)	µm	IPC-4101C	100:30.0-37.7	33.2
PERMITTIVITY(1MHz)	-	C-24/23/50	5.4 ± 0.1	4.34
PERMITTIVITY(1GHz)	-	C-24/23/50	5.4 ± 0.1	4.03
LOSS TANGENT(1MHz)	-	C-24/23/50	0.035 ± 0.005	0.018
LOSS TANGENT(1GHz)	-	C-24/23/50	0.035 ± 0.005	0.011
SURFACE RESISTIVITY	Ω/sq	C-36/35/90	<0.50mm:10 ¹¹ Ω; ≥0.50mm:10 ¹⁰ Ω	1.3E7
SURFACE RESISTIVITY	Ω/sq	E-24/125	10 ¹⁰ Ω	2.1E9
VOLUME RESISTIVITY	Ω-cm	C-36/35/90	<0.50mm:10 ¹¹ Ω; ≥0.50mm:10 ¹⁰ Ω	5.1E9
VOLUME RESISTIVITY	Ω-cm	E-24/125	10 ¹⁰ Ω	3.9E5
ARC RESISTANCE	sec	D-48/50-D-0.5/23	60 s	122
FLEXURAL STRENGTH	N/mm ²	LENGTHWISE A	415 N	574
FLEXURAL STRENGTH	N/mm ²	CROSSWISE A	345 N	428
THERMAL STRESS	-	248°C x 40sec	NO BLISTER DEFLAMINATION	OK
WARP AND TWIST	%	A	SINGLE DOUBLE 0.5-0.7mm: 2.0; 1.0; >0.70mm: 1.5; 1.0	0.40
FRESHNESS TEST	-	15psi x30min + 248°C x 20sec	IPC-TM-050	OK
MOISTURE ABSORPTION	%	E-1/105-IE5-D-24/23	0.80 ± 0.1	0.118
PEEL STRENGTH(UP)	lb/in	AFTER THERMAL STRESS	<0.5mm:4.5; ≥0.5mm:6.0	11.76
PEEL STRENGTH(DOWN)	lb/in	AFTER THERMAL STRESS	<0.5mm:4.5; ≥0.5mm:6.0	11.76
TG GLASS TRANSITION TEMP	°C	E-2/105	135 (HSC)	136.0/137.8
FLAMMABILITY	sec	C-48/23/50 E-24/125	UL-94-V0 VDE-0860	OK
DIELECTRIC BREAKDOWN	KV	D-48/50-D-0.5/23	40 V	64
CONSTRUCTION	-	A	#Results	7628*6
THICKNESS(MAX.)	mm	A	≤1.2mm:CLASS C/W; >1.2mm:CLASS H/L	1.127
THICKNESS(MIX.)	mm	A	≤1.2mm:CLASS C/W; >1.2mm:CLASS H/L	1.114
THICKNESS(AVG.)	mm	A	≤1.2mm:CLASS C/W; >1.2mm:CLASS H/L	1.119
COPPER ROUGHNESS(S/S)UP	µm	A	Ra: ≤0.4/Rz: ≤2.5 TYPE:ITE	0.24/1.03
COPPER ROUGHNESS(M/S)UP	µm	A	Ra: ≤1.7/Rz: ≤9.5 TYPE:ITE	1.49/9.08
COPPER ROUGHNESS(S/S)DOWN	µm	A	Ra: ≤0.4/Rz: ≤2.5 TYPE:ITE	0.30/1.03
COPPER ROUGHNESS(M/S)DOWN	µm	A	Ra: ≤1.7/Rz: ≤9.5 TYPE:ITE	1.05/8.87

THIS IS TO CERTIFY THAT THE MATERIAL BEING FURNISHED TO YOU MEETS THE IPC-4101C - RoHS AND SS-00250. THE RESULTS OF THIS QUALITY TEST REPORT IS PASS.

APPROVED BY

N. C. Cheng





ZPMV2.E339220
Wiring, Printed - Component

Enhanced searching capability for this category can be found in UL's IQ Family of Databases (<http://iq.ul.com>).

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Wiring, Printed - Component

[See General Information for Wiring, Printed - Component](#)

BIING CHERN TECHNOLOGY CORP
 29 BAO'AN ST, 2C 1
 SHULIN, TAIPEI HSIEN 238 TAIWAN

E339220

Type	Cond Width		Cond	SS/ DS/	Max	Soldar		Max	Flame	Meets	C
	Min	Edge			Area	Temp	Limit	Oper			
	mm(in)	mm(in)	Thk	DS/	Diam	C	sec	C	Class	DSR	I
Multilayer printed wiring boards.											
ML-1	0.1 (0.004)	0.3 (0.012)	17 (0.67) Int: 68	DS	25.4 (1.0)	260	10	130	V-0	All	*
Single layer printed wiring boards.											
DS-1	0.1 (0.004)	0.1 (0.004)	17 (0.67)	DS	25.4 (1.0)	260	10	130	V-0	All	*

* - CEI PLC is marked on individual board.



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