WINSTAR CHARACTER LCD

ÖZDİSAN LAB
Revision date:
Doc. no: 001

Example code: WH1604A-YYH-ETV#

1.Module Classification Information

W	H	1604	A	—	Y	Y	H	—	ETV#
①	②	③	④		⑤	⑥	⑦		⑧

① Brand : WINSTAR DISPLAY CORPORATION

② Display Type : H→Character Type, G→Graphic Type, T→TAB Type

③ Display Font : Character 16 words, 04 Lines.

④ Model serials no.

⑤ Backlight Type :

N→Without backlight	T→LED, White	S→LED, High light White
B→EL, Blue green	A→LED, Amber	L→LED, Full color
D→EL, Green	R→LED, Red	J→DIP LED,Blue
W→EL, White	O→LED, Orange	K→DIP LED,White
M→EL, Yellow Green	G→LED, Green	E→DIP LED, Yellow Green
F→CCFL, White	P→LED, Blue	H→DIP LED,Amber
Y→LED, Yellow Green	X→LED, Dual color	I→DIP LED, Red
G→LED, Green	C→LED, Full color	

⑥ LCD Mode :

B→TN Positive, Gray	V→FSTN Negative, Blue
N→TN Negative,	T→FSTN Negative, Black
L→VA Negative	D→FSTN Negative (Double film)
H→ HTN Positive, Gray	F→FSTN Positive
I→HTN Negative, Black	K→FSC Negative
U→HTN Negative, Blue	S→FSC Positive
M→STN Negative, Blue	E→ISTN Negative, Black
G→STN Positive, Gray	C→CSTN Negative, Black
Y→STN Positive, Yellow Green	A→ASTN Negative, Black

⑦ LCD Polarizer Type/ Temperature range/ View direction

A→Reflective, N.T, 6:00	H→Transflective, W.T,6:00
D→Reflective, N.T, 12:00	K→Transflective, W.T,12:00
G→Reflective, W.T, 6:00	C→Transmissive, N.T,6:00
J→Reflective, W.T, 12:00	F→Transmissive, N.T,12:00
B→Transflective, N.T,6:00	I→Transmissive, W.T, 6:00
E→Transflective, N.T,12:00	L→Transmissive, W.T,12:00

⑧ Special Code

ET:English and European standard font

V:Build in negative Voltage

#:Fit in with the ROHS Directions and regulations

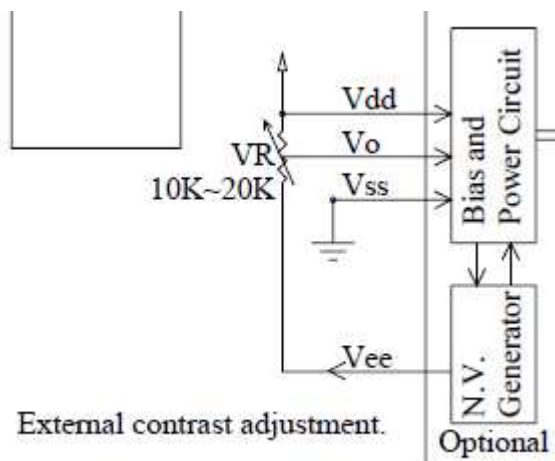**LETTER DESCRIPTIONS FOR SPECIAL CODE (8-special code):**

Code	Remark
#	RoHS
V	Negative Voltage
N	Without Negative Voltage
M	Temperature Compensation **without** Negative Voltage
T	Temperature Compensation **with** Negative Voltage
Z	86 Driver
GB	Simplified Chinese display.
B5	Tradional Chinese display.

EXISTING ALPHABET:

Code	Character display
JP, JT, JS, JN, JC, JU, JW	English/Japanese
EP, ET, EE, EN, EC, ES, EU, ST	English/Europe
CP, CT, CW	English/Cyrillic
HP, HS, HT, H2	English/Hebrew
AT (for WO1602E series)	English/Japanese/Europe

USEFUL TIPS:

Negative Voltage: Some LCDs have negative voltage regulator. In this way, LCD detects the contrast change due to the temperature change and adjusts the negative voltage for an optimum contrast.

Some codes have "000" at the end. This term is a special serial number of the producer. It is not related to any change of the product.