

N970W

7" Mobile Data Terminal with CSR A6



Features

- 7" WVGA LCD with 3 programmable hot keys
- WinCE6.0
- Supports analog video input & 2*RS232, 1*RS485
- Supports CDMA/HSDPA/GPRS, GPS, WIFI and BT communications
- 9V-32V / No battery
- Fanless and ruggedized iron chassis, able to work under -10~70°C

Introduction

N970W is a WinCE6.0 OS, all-in-one 7" mobile data terminal with touchscreen for commercial vehicles. With an 800 MHz ARM Cortex A6 CPU Core processor. the system is high performing with network services using easily with CDMA / GPS communications. Focused on the automotive market, N970W is designed with vehicle power, ensuring the system is more stable during engine starts. Die casting and a ruggedized chassis not only provide more capabilities in a wide range of temperatures (-10 ~ 70° C), but N970W is also suitable for harsh environments subject to shock and vibration.

Specifications

Processor & Operating System

CPU	ARM Cortex-A9 Core 800MHz, CSR A6
Operating System	WinCE 6.0

Memory

DDR3	512MB
Nand Flash	4GB

Display

7 inch WVGA 800*480
LED backlight, wide type
350 nits

Keypad & Buttons

2 function keys (support external keyboard)
1 power button
1 LED

Interface ports

RS232 serial ports	2
RS485	1
CVBS Input	1
USB ports	2 x 2.0 USB Host 1 x 2.0 USB Device

Accessible Expansion Slots

Internal/External SD socket	1 x Micro SD and 1 x External SD, support up to 32G
Internal SIM card	GSM communication

I/O port

Digital input x 3 line
Digital output x 1 line

Audio

Speaker	2W 8ohm, Size:40mm
	EAR & MIC

GPS

MTK GPS module
66 channels
Sensitivity -163 dBm

GSM/GPRS (3G)

QUECTEL UC15, 6-bands
Sensitivity -106 dBm

Antenna

GPS Antenna	Internal / External(optional)
GSM Antenna	Internal

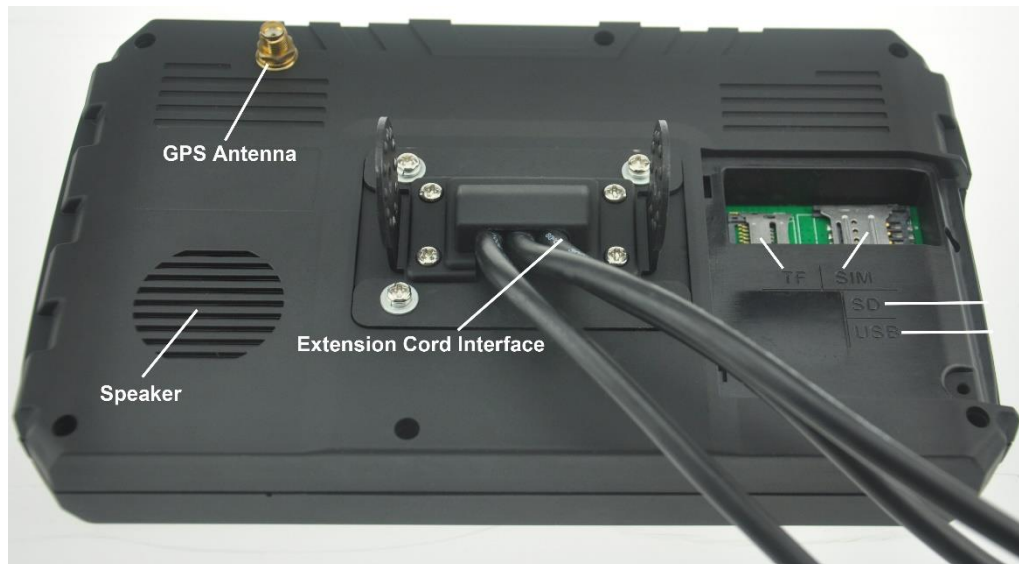
Physical Characteristics

Size	200*118*28mm
Weight	1.2 kg

Environment

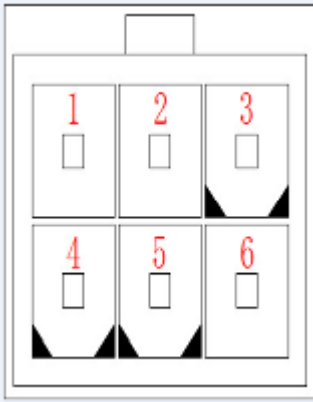
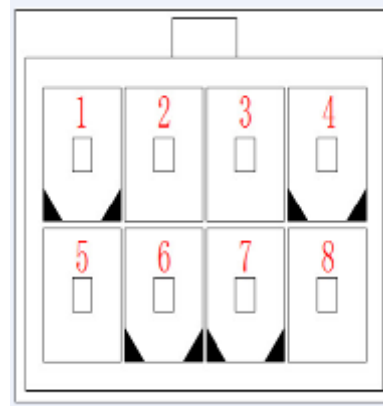
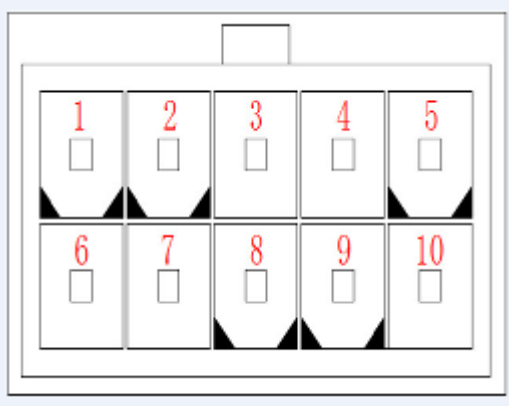
Main Power	8~32V
Battery	No battery
Operating Temperature	-20°C to +70°C
Humidity	5% - 90%

I/O Connectors

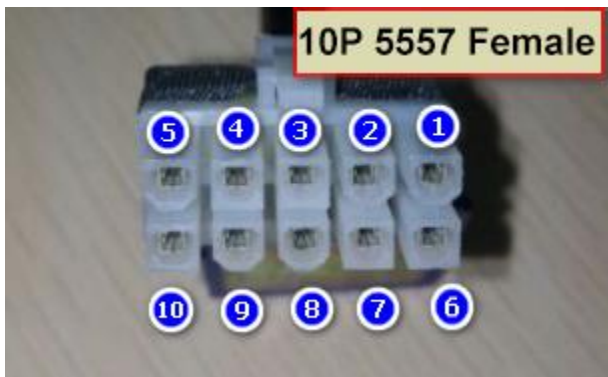


Pin Assignment

1. 10P 5557, 8P 5557, 6P 5557:

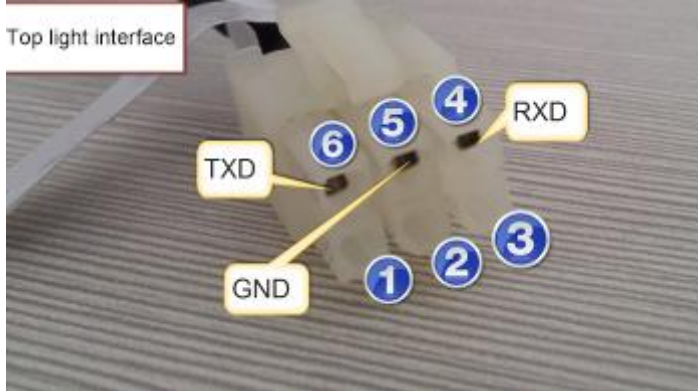


2.1 10P 5557 define.



5557 number	Pin name description of J16	sch net name of J16	remark
1	COM2 RX	UART_RXD1	
2	COM2 TX	UART_TXD1	
3	COM4 RX	UART_RXD2	
4	COM4 TX	UART_TXD2	
5	CVBS1 Video In	CVBS1	
6	+12V Control Output 0	OUTPUT0	
7	USB2 DM	DM2	
8	USB2 DP	DP2	
9	USB 5V	OUTPUT USB 5V	
10	GND	GND	

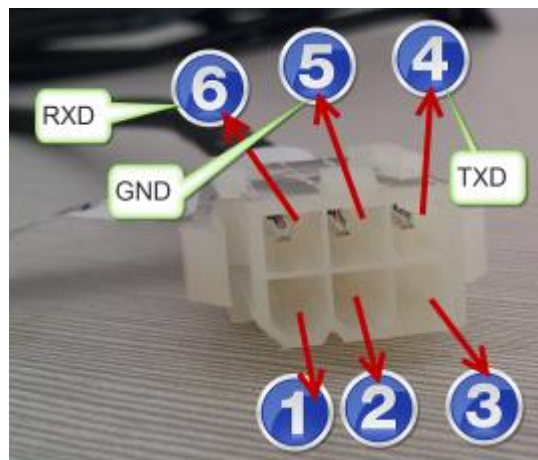
2.2. Top light interface



6Pin socket define:

6pin number	Name	10P 5557 number	function	Wire Spec.
1	NC			
2	NC			
3	NC			
4	RXD	1	COM4 RXD	26AWG 1.2m
5	GND	10	GND	26AWG 1.2m
6	TXD	2	COM4 TXD	26AWG 1.2m

2.3. Taximeter interface



6Pin socket define:

6pin number	Name	10P 5557 number	Function	Wire Spec.
1	NC			
2	NC			
3	NC			
4	TXD	4	COM2 TXD	26AWG 1.2m

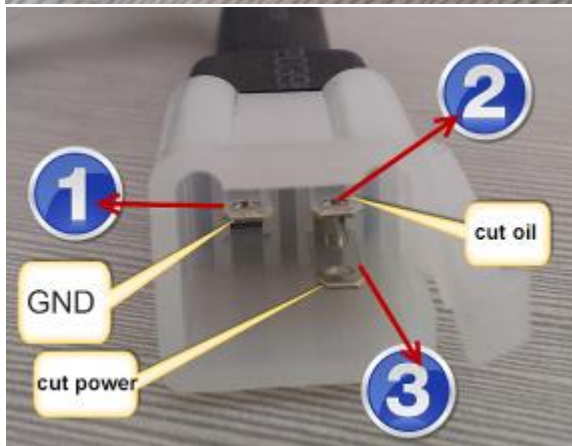
5	GND	10	GND	26AWG 1.2m
6	RXD	3	COM2 RXD	26AWG 1.2m

2.4. Analog camera interface



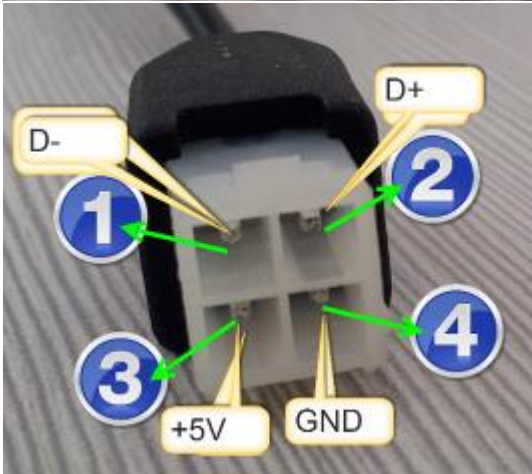
Number	Name	10P 5557 number	Function	Wire Spec.
1	CVBS	5	CVBS singal	24AWG 1.2m
2	GND	10	GND	24AWG 1.2m

2.5. Output port interface



4pin number	Name	10P 5557 number	Function	Wire Spec.
1	GND	10	GND	26AWG 1.2m
2	Output 1	6	Connect to 12V relay	26AWG 1.2m
3	Output 2	6	Connect to 12V relay	26AWG 1.2m

2.6. USB interface



4pin number	Name	10P 5557 number	Function	Wire Spec.
1	D-	7	USB D-	26AWG 1.2m
2	D+	8	USB D+	26AWG 1.2m
3	+5V	9	+5V power output	26AWG 1.2m
4	GND	10	GND	26AWG 1.2m

3.1 8P 5557 female interface:

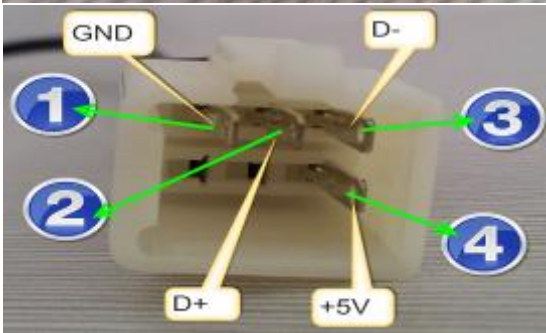


8P 5557 Female

5557 number	Pin name description of J15
1	USB +5V power output
2	RS485_A1/DM3
3	RS485_B1/DP3

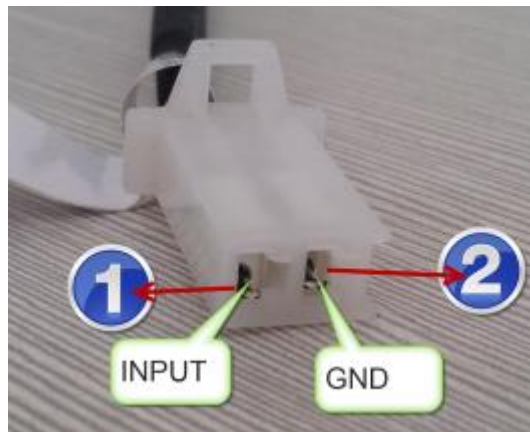
4	Input port
5	GND
6	
7	
8	

3.2. USB Device



6pin Number	Name	8P5557 interface number	Function	Optional function	Wire Spec.
1	GND	5	GND	GND	26AWG 1.2m
2	D+	3	Connect USB data D+	RS485_B1	26AWG 1.2m
3	D-	2	Connect USB data D-	RS485_A1	26AWG 1.2m
4	+5V	1	+5V power output	USB 5V	26AWG 1.2m

3.3 Keyboard Interface



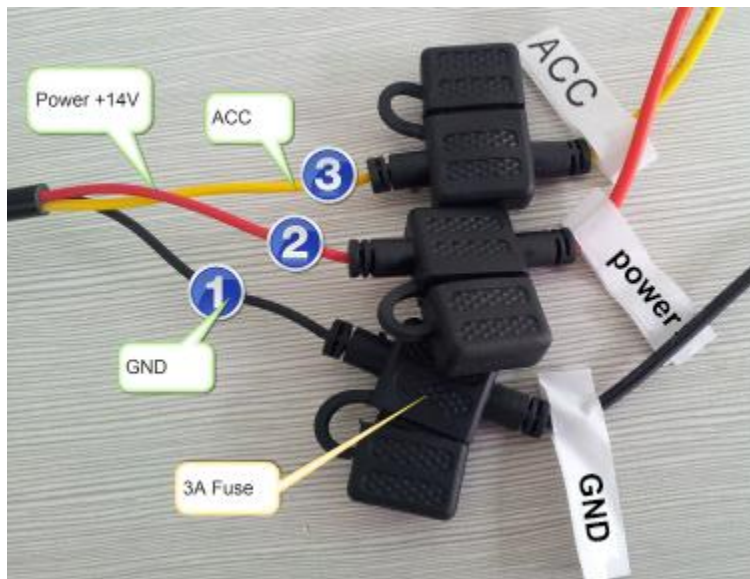
2pin number	Number	8P 5557 Interface number	Function	Wire Spec.
1	KEY_1_EXT	4	Connect buttons	26AWG 1.2m
2	GND	5	GND	26AWG 1.2m

4.1. Net define of 6P 5557 female interface



5557female interface number	Pin name description of J14	sch net name of J14	remark
1	Battery terminal positive	Car_14V_IN	
2	ACC Input	Car_ACC	
3	Battery terminal negative	Car_GND	
4	Input 2	INPUT2	
5	Input 3	INPUT3	
6	Input 1	INPUT1	

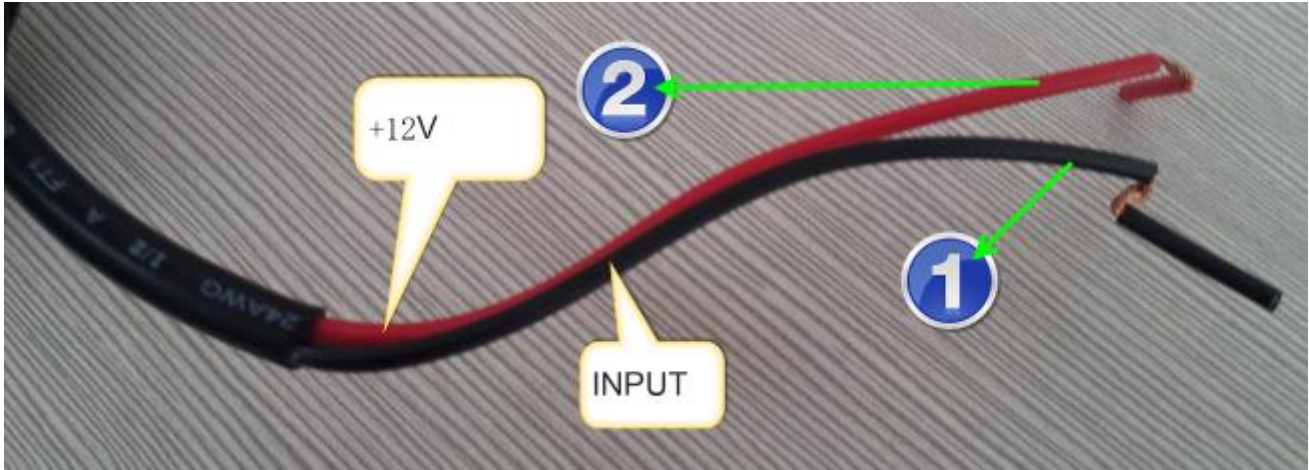
4.2. Power input interface



Number	Name	6P 5557 female interface number	function	Wire Spec.
1	GND	3	GND	18AWG 1.5m with 3A Fuse+0.3m
2	Power +14V	1	Connect car power	18AWG 1.5m with 3A Fuse+0.3m

3	ACC	2	Connect car ACC	18AWG 1.5m with 3A Fuse+0.3m
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4.3. Car status interface



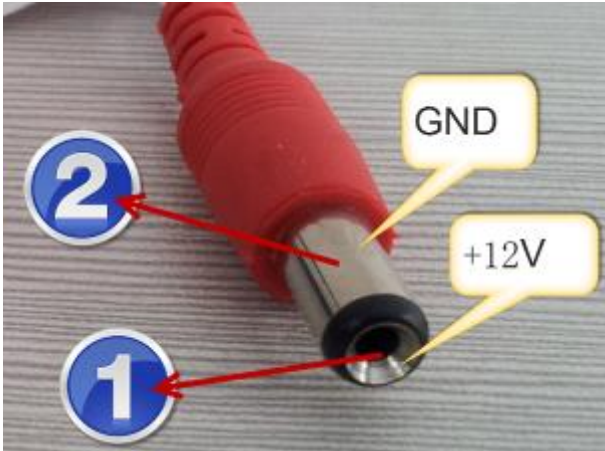
Number	Name	6P 5557 female number	Function	Wire Spec.
1	+12V	1	Connect power input (+12V)	24AWG 2.5m
2	Input	4	Input2	24AWG 2.5m

4.4. Alert button interface



2pin number	Number	6P 5557 female number	Funtion	Wire Spec.
1	INPUT	5	Connect alert button	26AWG 1.2m
2	GND	3	GND	26AWG 1.2m

4.5. Analog camera power interface



Number	Name	6P 5557 female number	Function	Wire Spec.
1	+12V	1	Connect power input (+12V)	26AWG 1.2m
2	GND	3	GND	26AWG 1.2m