



# Application Programming Guide **OPOS Driver**

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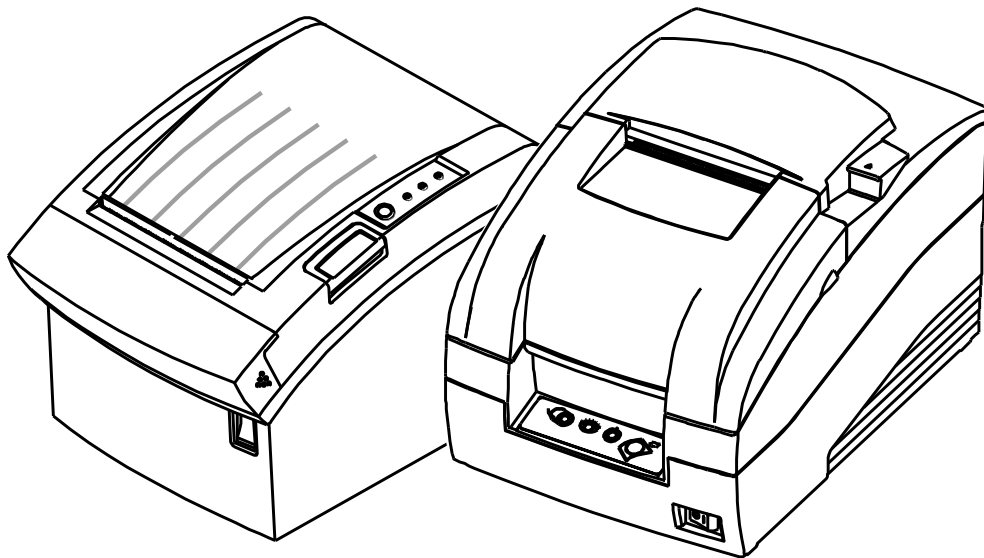
**Rev. 1.03**

**GDP-220**

**GTP-250**

**GTP-250II**

**GTP-250III**



## ■ Table of Contents

<b>1. Instruction .....</b>	<b>3</b>
<b>2. Development environment.....</b>	<b>4</b>
2-1 Communication Configuration .....	4
<b>3. Property / Method .....</b>	<b>5</b>
3-1 Property Range / Default Value .....	5
3-1-1 Capability property setting value.....	5
3-1-2 Property default value / Range .....	6
3-1-3 POSPrinter Method .....	6
3-1-4 POSPrinter Escape Sequences.....	7
3-1-5 Color bitmap printing support .....	8
3-1-6 Page Mode printing .....	8
<b>4. Extended Functions.....</b>	<b>9</b>
4-1 DirectIO Method.....	9
4-2 DirectIOEvent Event .....	10
<b>5. Error Information .....</b>	<b>11</b>
5-1 ResultCode List .....	11

## **1. Instruction**

This is a manual about how to set and configure device and to develop applications to use SENOR Tech POS printer with SENOR Tech OPOS driver.

Before use SENOR Tech POS printer, set and configure printer by using SENOR Tech OPOS driver Setup Utility.

Throughout this manual, “OLE for Retail POS” is called “OPOS”.

Throughout this manual, “Unified for Retail POS” is called “UPOS”.

Further Source

OLE for Retail POS committee available from <http://monroecs.com/opos.htm>

Driver Update from <http://www.senortech.com>

## **2. Development environment**

### **2-1 Communication Configuration**

1) Communication Configuration for serial interface.

You will set communication configuration in SENOR Tech OPOS Setup Utility.

Printer Model	Baudrate	Printer Type	etc
GDP-220	2400/4800/9600/19200	2 Color Dot	
GTP-250	9600/19200/57600/115200	2 Color Thermal	
GTP-250II	9600/19200/57600/115200	2 Color Thermal	
GTP-250III	9600/19200/38400/57600/115200	Mono Thermal	

\* Check the default communication setting. For more details refer to the user manual included in the printer package.

### 3. Property / Method

#### 3-1 Property Range / Default Value

- 2 Color Dot : GDP-220
- 1 Color Thermal : GTP-250III
- 2 Color Thermal : GTP-250, GTP-250II

##### 3-1-1 Capability property setting value

Capability Name	2 Color Dot	1 Color Thermal	2 Color Thermal
CapCompareFirmwareVersion	FALSE	FALSE	FALSE
CapPowerReporting	TRUE	TRUE	TRUE
CapStatisticsReporting	FALSE	FALSE	FALSE
CapUpdateFirmware	FALSE	FALSE	FALSE
CapUpdateStatistics	FALSE	FALSE	FALSE
CapTransaction	TRUE	TRUE	TRUE
CapCoverSensor	TRUE	TRUE	TRUE
CapConcurrentRecSlp	FALSE	FALSE	FALSE
CapConcurrentJrnSlp	FALSE	FALSE	FALSE
CapConcurrentJrnRec	FALSE	FALSE	FALSE
CapCharacterSet	TRUE	TRUE	TRUE
CapRecUnderline	TRUE	TRUE	TRUE
CapRecPageMode	FALSE	TRUE	TRUE
CapCuncurrentPageMode	FALSE	FALSE	FALSE
CapRecStamp	FALSE	FALSE	FALSE
CapRecRotate180	TRUE	TRUE	TRUE
CapRecRight90	FALSE	TRUE	TRUE
CapRecPapercut	TRUE	TRUE	TRUE
CapRecNearEndSensor	FALSE	TRUE	TRUE
CapRecMarkFeed	FALSE	FALSE	FALSE
CapRecLeft90	FALSE	TRUE	TRUE
CapRecItalic	FALSE	FALSE	FALSE
CapRecEmptySensor	TRUE	TRUE	TRUE
CapRecDwideDhigh	TRUE	TRUE	TRUE
CapRecDwide	TRUE	TRUE	TRUE
CapRecDhigh	TRUE	TRUE	TRUE
CapRecColor	TRUE	FALSE	TRUE
CapRecCartridgeSensor	FALSE	FALSE	FALSE
CapRecBold	TRUE	TRUE	TRUE
CapRecBitmap	TRUE	TRUE	TRUE
CapRecBarCode	TRUE	TRUE	TRUE
CapRec2Color	TRUE	FALSE	TRUE
CapRecPresent	TRUE	TRUE	TRUE

\* May be capability setting values are different depending on the printer model.

**3-1-2 Property default value / Range**

Property	GDP-220	GTP-250	GTP-250II
RecLine CharsList	"33,40"	"42,56"	"42,56"
RecBitmap List	0,L90,R90,180	0,L90,R90,180	0,L90,R90,180
Character SetList	"437,850,860,863, Katakana,865,866, 1252,852,858,862, 864,Thai42,1253, 1254,1257,Farsi,1 251,737,775, 255"	"1,23(Thai14),27(Farsi), 31(Thai16),32(hebrewOld), 34(Thai11),35(Thai18), 437,737,775,850,852,855, 857,858,860,862,863,864, 865,866,928,1251,1252,12 53,1254,1255,1257"	"1,23(Thai14),27(Farsi),3 1(Thai16),32(hebrewOld) ,34(Thai11),35(Thai18),4 37,737,775,850,852,855, 857,858,860,862,863,86 4,865,866,928,1251,125 2,1253,1254,1255,1257"
RecLine Height	9	24	24
RecLine Width	512	512	512
RecLine PaperCut	9	5	5
RecLine Spacing	0~127(Default :16)	0~127(Default :16)	0~127(Default :16)

**3-1-3 POSPrinter Method**

Method	Value
beginInsertion	X
beginRemoval	X
changePrintSide	X
clearPrintArea	O
cutPaper	O
endInsertion	X
endRemoval	X
markFeed	X
pageModePrint	O (Dot, Ink type printer unsupported)
printBarCode	O
printBitmap	O
printImmediate	O
printNormal	O
printTwoNormal	X
rotatePrint	O
setBitmap	O
setLogo	O
transactionPrint	O
validateData	O

O: Supported, X: Not supported

**3-1-4 POSPrinter Escape Sequences**

Escape Sequence	Value
#P	O (Value range : 0~100)
#fP	O (Value range : 0~100)
#sP	X
sL	X
#B	O
tL	O
bL	O
#IF	O (Value range : 0~9999)
#uF Base Pitch [inch]	O
#rF Maximum[inch]	X
#fT	O
bC	O
#uC	O
iC	X
#rC	X
RvC	O
#sC	X
#fC	X
TbC	X
TpC	X
1C	O
2C	O
3C	O
4C	O
#hC	O
#vC	O
cA	O
rA	O
N	O

O: Supported, X: Not supported

**3-1-5 Color bitmap printing support**

SENR Tech OPOS Driver supports following image formats;

- GIF, JPG, BMP Image Format.

The image will be converted into monochrome or 2 colors depending on printer model.

**3-1-6 Page Mode printing**

SENR Tech GTP-250/GTP-250II/GTP-250III Printer support page mode printing.  
(SENR Tech GDP-220 Printer don't support this feature.)

\* Methods used with Page Mode Printing

Method	Value
printNormal	O
printBitmap	X
printBarcode	X

O: Supported, X: Not supported



## 4. Extended Functions

This section is to explain DirectIO method. This method will operate properly only with SENOR Tech GDP-220 POS printer.

### 4-1 DirectIO Method

Parameter	Explanation	Type
Command	Output format	Long
PData	Number of output data / Value defined by command	Long
PString	Output Data	String

#### SENRO Tech OPOS DirectIO Command

Command	Constant	Description
PRN_DI_OUTPUT	0	Output defined pString data
PRN_DI_INTERNATIONAL_CHAR	1	International charset define.

#### PRN\_DI\_OUTPUT

Argument	Command	PRN_DI_OUTPUT
	PData	Null
	PString	Output data
Description	Sends data without any process after checking printer status. “pString” is not affected by “BinaryConversion”	
Return	Result Code	ResultCodeExtended
	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_BUSY	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	0

**PRN\_DI\_INTERNATIONAL\_CHAR**

Argument	Command	PRN_DI_INTERNATIONAL_CHAR
	PData	One of the commands: PRN_DI_CHAR_USA PRN_DI_CHAR_FRANCE PRN_DI_CHAR_GERMANY PRN_DI_CHAR_UK PRN_DI_CHAR_DENMARK1 PRN_DI_CHAR_SWEDEN PRN_DI_CHAR_ITALY PRN_DI_CHAR_JAPAN PRN_DI_CHAR_SPAIN1 PRN_DI_CHAR_NORWAY PRN_DI_CHAR_DENMARK2
	PString	Printing position
Description	Sets International character set. If CharSet property value is changed, International character set will be reset.	
Return	Result Code	ResultCodeExtended
	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_BUSY	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	0

**4-2 DirectIOEvent Event**

Not used.

## 5. Error Information

This section is to explain returned error information when use POSPrinter methods. For more details, please refer to the UPOS specifications.

### 5-1 ResultCode List

#### ClaimDevice

Method	Result Code	ResultCodeExtended
ClaimDevice	OPOS_E_ILLEGAL	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_CUTTER
		OPOS_EPTR_OVERHEAT
		OPOS_EPTR_REC_EMPTY
		OPOS_EPTR_JRN_EMPTY

#### CheckHealth

Method	Result Code	ResultCodeExtended
CheckHealth	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT

#### ClearOutput

Argument	Argument	Argument
ClearOutput	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0

**DirectIO**

Method	Result Code	ResultCodeExtended
DirectIO	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

**PrintNormal**

Method	Result Code	ResultCodeExtended
PrintNormal	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

**PrintImmediate**

Method	Result Code	ResultCodeExtended
PrintImmediate	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

**CutPaper**

Method	Result Code	ResultCodeExtended
CutPaper	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

**RotatePrint**

Method	Result Code	ResultCodeExtended
RotatePrint	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

**PrintBitmap**

Method Name	Result Code	ResultCodeExtended
PrintBitmap	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_NOEXIST	0
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY
		OPOS_EPTR_SLP_EMPTY
		OPOS_EPTR_TOOBIG
		OPOS_EPTR_BADFORMAT

**SetBitmap**

Method	Result Code	ResultCodeExtended
SetBitmap	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_NOEXIST	0
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY
		OPOS_EPTR_SLP_EMPTY
		OPOS_EPTR_TOOBIG
		OPOS_EPTR_BADFORMAT

**SetLogo**

Method	Result Code	ResultCodeExtended
SetLogo	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0

**TransactionPrint**

Method	Result Code	ResultCodeExtended
TransactionPrint	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_NOEXIST	0
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY
		OPOS_EPTR_SLP_EMPTY