

# Kofax Communication Server

## Model 360 SMS-Box Installation Guide

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The logo for Kofax, consisting of the word "KOFAX" in a bold, blue, sans-serif font.

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## Chapter 1

# Product description

Model360 (SMS-Box) is a standalone device to send and receive SMS messages via Kofax Communication Server (KCS). Model360 can be connected to the KCS via a local network or as a Branch Box via WAN.

## Chapter 2

# Related document

Technical Manual for TC/LINK-WM and TC/LINK-MD

## Chapter 3

# Specifications

Following are the specifications of Model360:

GSM frequency bands:	UMTS 900/2100MHz GSM/EDGE 850/1900MHz
Interface:	10Base-T and 100Base-TX (auto sensing)
Operating voltage:	100-230V/60-50Hz
Operating current:	0,15-0,22A max.
Mechanical size:	145mm x 125mm x 75mm (without antenna)
Weight:	app. 500g
Operating Temperature:	0-40°C

## Chapter 4

# Installation instructions

This section describes the installation of Model360.

## Prerequisites

Following are the software and hardware prerequisites:

- DeviceInstaller application  
You can download this application from the Lantronix website. Latest tested version is 4.3.0.1 on Windows Server 2008 R2 64-bit.
- Windows 2003 or later computer with network access  
Refer to Lantronix device installer release notes for details.
- Valid SIM card
- Free IP address and net mask from network administrator
- Power cord and network cable
- Mobile phone to identify the location with best GSM-reception for the selected provider
- MAC address of the device to install (optional)
- TC/LINK-MD/WM [version 2.10.08](#) or later

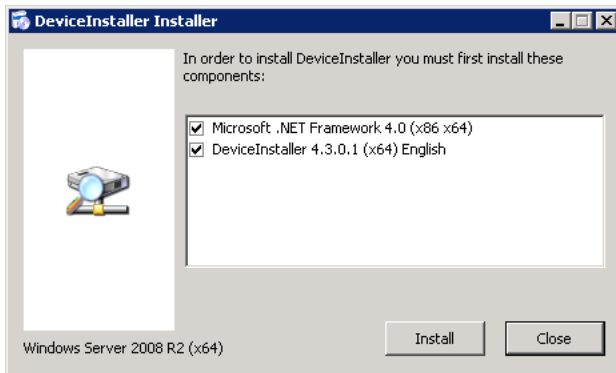
**Note** Do not update firmware of the GSM box with the DeviceInstaller

## Initial setup

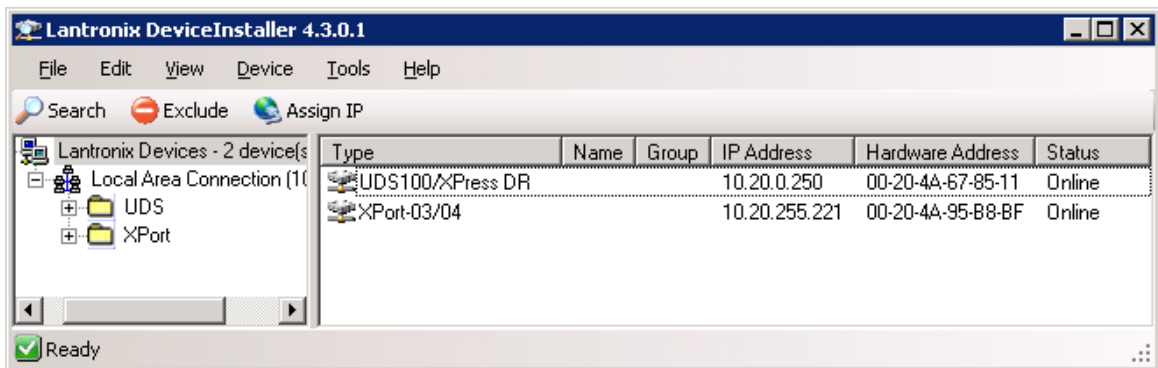
1. Remove the Model360 rear panel and insert a SIM card.
2. Place the Model360/GSM antenna in a location with LAN access.  
Ensure that the GSM reception is good. Verify the GSM reception quality using a mobile phone of the same provider. If required, connect an external antenna via a 50 Ohm, such as RG174, with FME connector. The length of the cable should be a maximum of three meters.
3. Connect antenna to Model360.
4. Connect Model360 to LAN.

- If DeviceInstaller is not installed on your computer, install DeviceInstaller from the DeviceInstaller setup.

**Note** The .NET Framework version required for DeviceInstaller is installed along with the setup.



- Start DeviceInstaller.exe on a computer in the same subnet where you are configuring Model360.
- Click **Device > Search**.  
DeviceInstaller displays the list of available devices in the network.



**Note** The 'Hardware Address' (MAC address) is marked internally on the LAN-connector (COM server.)

- Make a note of other devices that are available on the network.
- Power up the Model360.
- To verify whether the new device is added, wait for one minute, and then click **Device > Search** again.  
The new device appears in the list of available devices.
- Identify and select the new device, and then click **Assign IP**. See [Assign IP address](#).

## Assign IP address

You can assign IP address, Subnet mask and default gateway for your network or enable DHCP/Auto-IP.



There are two scenarios of assigning an IP address:

- **Configuring in the target network:** If workstation with DeviceInstaller is in the same subnet as Model360, all features of DeviceInstaller are available and you can configure the IP addresses within the same subnet.
- **Configuring outside the target network:** If DeviceInstaller is NOT in the same subnet as Model360, you can assign the IP address using the Assign IP option of DeviceInstaller.

**Note** If the device is not found using the Search option, identify the MAC address of Model360 on the COM server inside Model360. Note the IP address of the device and connect via Telnet (Port 9999). See [Assign IP address using Telnet](#).

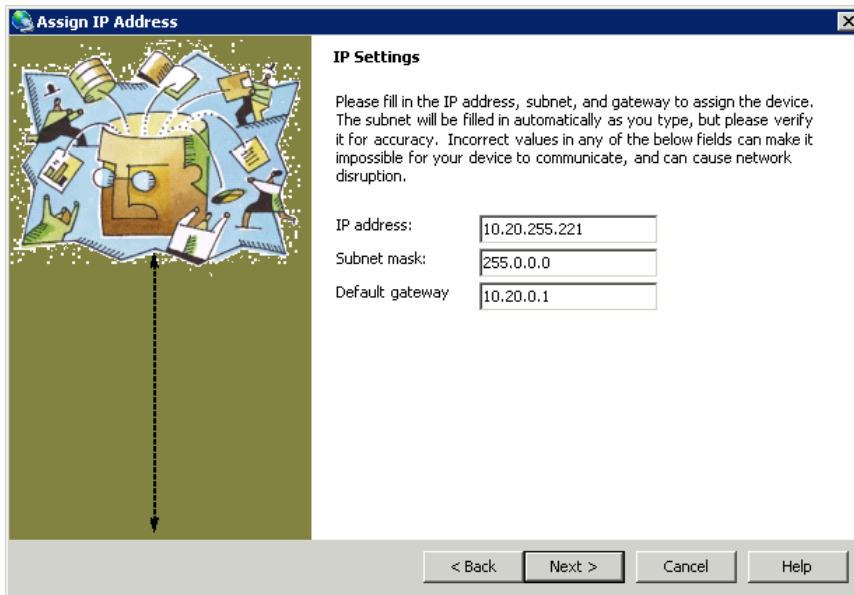
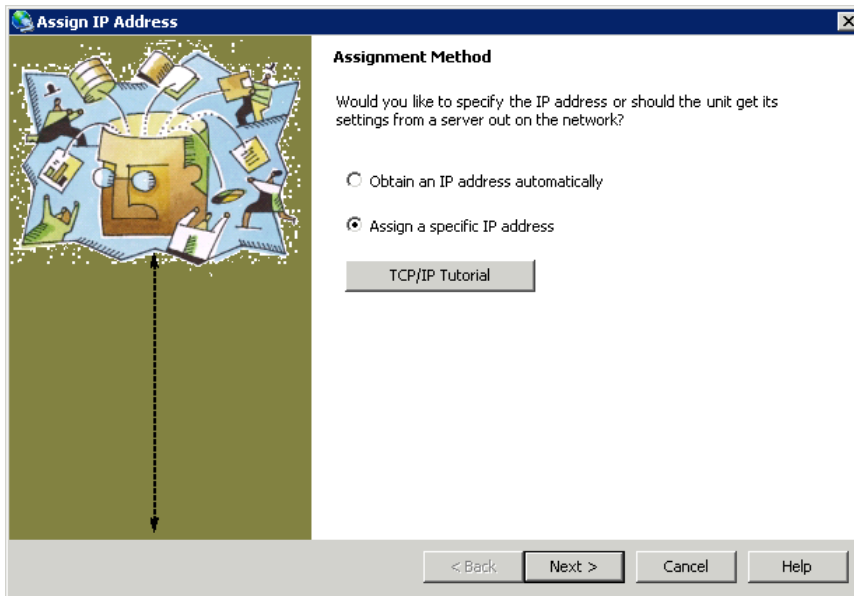
**Note the following:**

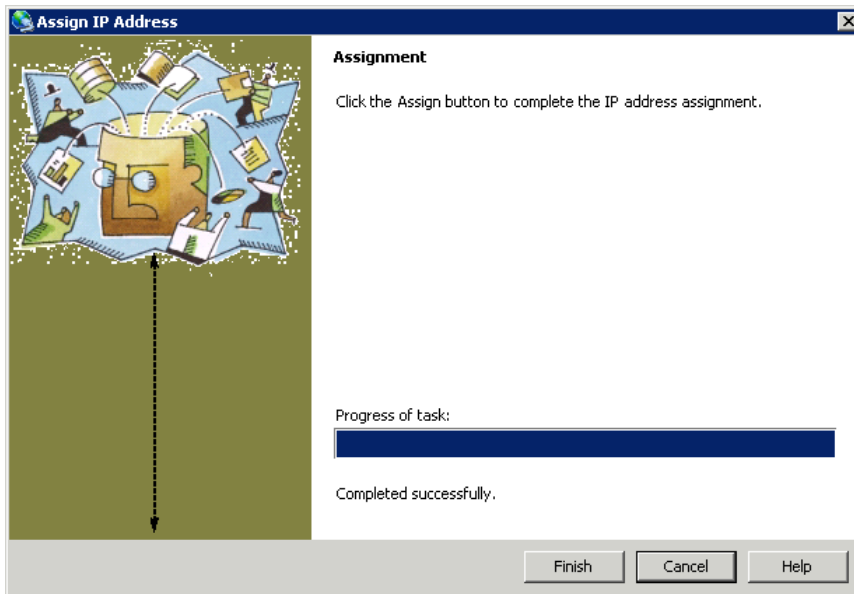
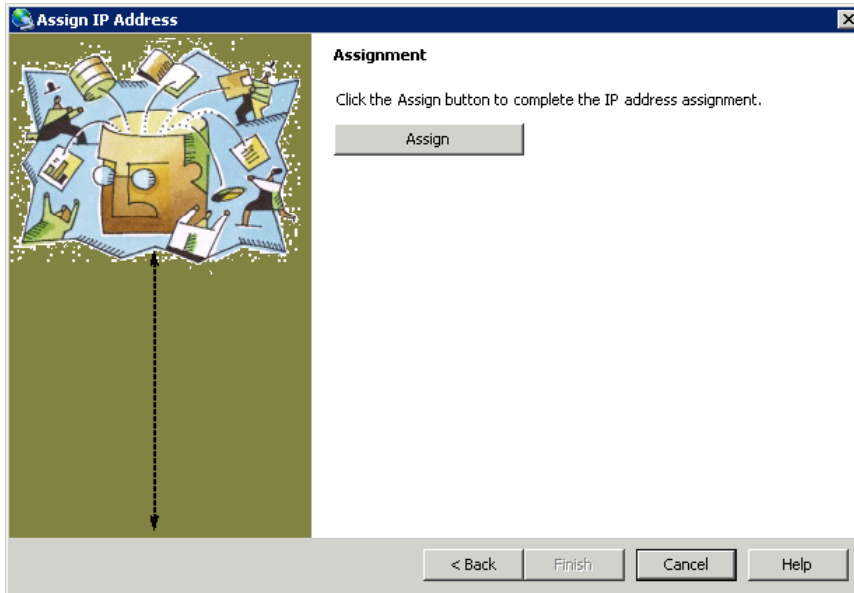
- You can configure a different Subnet mask, using Telnet. You can also configure a mask that does not allow connecting the device from the workstation again via Telnet without changing the network configuration of the workstation. Remember this when planning an installation.
- If the IP address of Model360 is set to an invalid value with Telnet, Model360 will be unreachable via network. Return Model360 to factory. For example, 000.xxx.xxx.xxx.
- If you configure a different Subnet masks from the computer where DeviceInstaller is running, the DeviceInstaller displays warnings such as 'Unreachable for further configuration'.

## Assign IP using DeviceInstaller

1. On the DeviceInstaller application, click **Device > Search**.  
A list of all available devices appears.
2. Identify and select the new device, and click **Assign IP**.

3. Follow the wizard.





4. Click **Finish**.

## Modify an IP address

To modify an IP address, do the following:

1. On the DeviceInstaller application, click **Device > Search**.
2. Double-click the device and select the **Web Configuration** tab.  
Alternatively, you can double-click a device and select the **Web Configuration** tab.
3. Make changes as required.

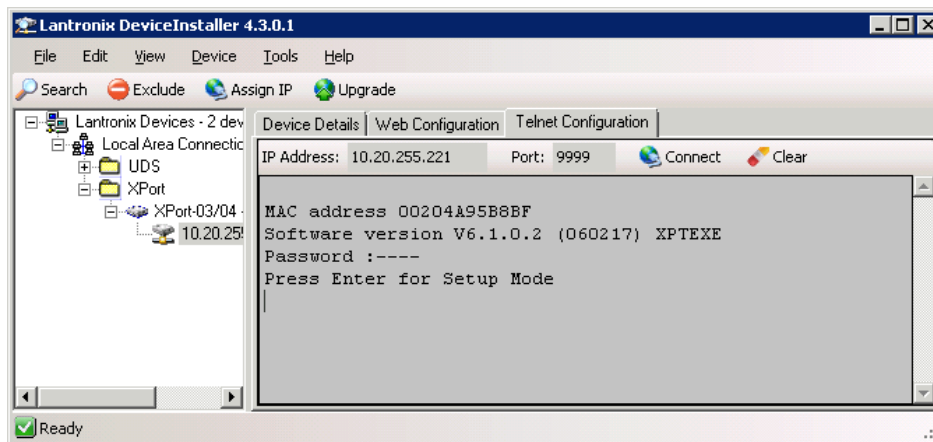
4. Save and exit.

## Assign IP address using Telnet

To assign IP address using Telnet, do the following:

1. Select a device and double-click on it.
2. Go to the **Telnet Configuration** tab and select **Connect**.

**Important Warning** Be careful when configuring the COM-Server by Telnet. Wrong configuration such as Subnet mask may result in a LAN-deadlock of the device. See [Recovery from LAN-Deadlock via arp Command](#).



3. Type the password.

4. Press **Enter** to start setup mode.

Alternatively, you can start telnet via Windows Run prompt. Start > Run and enter "*telnet [IP address] 9999*". 9999 is the unit's fixed network configuration port number. Follow the instructions.

```
ca: Telnet 172.20.133.40
MAC address 0080A3C926D2
Software version U6.10.0.1 (141023) XPTXEXE
AES library version 1.8.2.1
Password :----
Press Enter for Setup Mode

*** basic parameters
Hardware: Ethernet TPI
IP addr 172.20.133.40, no gateway set
DNS Server not set
Telnet config password set
DHCP FQDN option: Disabled

*** Security
SNMP is          enabled
SNMP Community Name: public
Telnet Setup is  enabled
TFTP Download is enabled
Port 77FEh is    enabled
77FEh Access Mode is Read & Write
Web Server is    enabled
Web Setup is     disabled
ECHO is         disabled
Encryption is    disabled
Enhanced Password is disabled
Port 77F0h is    enabled

*** Channel 1
Baudrate 115200, I/F Mode 4C, Flow 00
Port 05004
Connect Mode : C0
Send '+++ ' in Modem Mode enabled
Show IP addr after 'RING' enabled
Auto increment source port disabled
Remote IP Addr: --- none ---, Port 00000
Disconn Mode : 00
Flush Mode : 00

*** Expert
TCP Keepalive : 45s
ARP cache timeout: 600s
CPU performance: Regular
Monitor Mode @ bootup : enabled
RS485 tx enable : active low
HTTP Port Number : 80
SMTP Port Number : 25
MTU Size: 1400
TCP Re-transmission timeout: 500 ms
Alternate MAC: disabled
Ethernet connection type: auto-negotiate

*** E-mail
Mail server: 0.0.0.0
Unit :
Domain :
Recipient 1:
Recipient 2:

- Trigger 1
Serial trigger input: disabled
Channel: 1
Match: 00,00
Trigger input1: X
Trigger input2: X
Trigger input3: X
Message :
Priority: L
Min. notification interval: 1 s
Re-notification interval : 0 s

- Trigger 2
Serial trigger input: disabled
Channel: 1
Match: 00,00
Trigger input1: X
Trigger input2: X
Trigger input3: X
Message :
Priority: L
Min. notification interval: 1 s
```

5. Change the following Server configuration:

**IP Address:** (xxx) .(xxx) .(xxx) .(xxx)

**Set Gateway IP Address:** (xxx) .(xxx) .(xxx) .(xxx)

**Netmask:** Number of bits for Host Part (0=default): xx -> 12 gives a netmask 255.255.240.0 (=FF.FF.F0.00), 24 will give a netmask of 255.0.0.0.

6. Change telnet config password (N) Y.

Enter new password: tcte; (maximum 4 digits of TCTEch). Password must be in lower case only!

7. Configure Channel 1.

Baudrate:	115200
I/F Mode:	4C
Flow:	00
Port No:	5004
Connect Mode:	C0

8. Configure Security:

- Disable Web Server (N) Y
- Disable Port 77F0 (N) N

9. Save and exit.

## Test connection to Model360

1. Enter the following command:

TELNET [IP address] 5004

This will open a Telnet connection to the GSM-Module.

2. Enter "AT" + **Enter**.

This must echo and the following answer must be sent from the module.

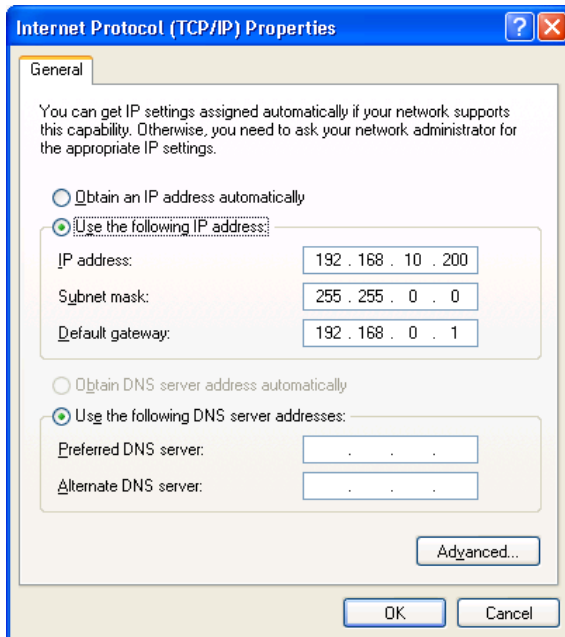
>OK

This indicates that the Model360 is ready for a TCOSS/GSM-link connection.

## Recovery from LAN-Deadlock via arp command

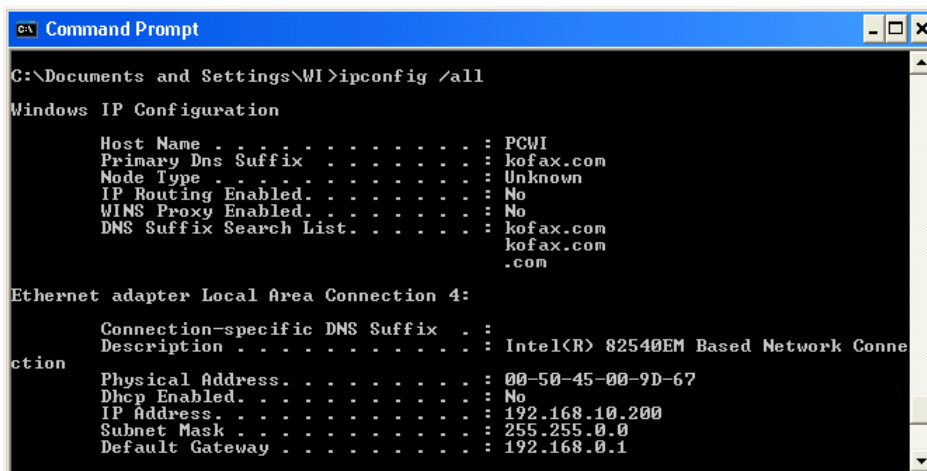
If you are not able to communicate with Model 360 either using DeviceInstaller or with Telnet, you can recover it using the LAN-Deadlock via arp command.

**Note** If you are using a crossover cable, and there is a direct network connection (without router) between the computer where DeviceInstaller is running and Model 360, the following network settings are recommended.



To recover from LAN-Deadlock via arp command, perform the following steps:

1. Open Windows Command Prompt (Start-Run-CMD).
2. Run the ipconfig /all command.





- To reconfigure Model360, use a free IP address. **Use the existing Netclass..**

```

Command Prompt
Physical Address . . . . . : 00-50-45-00-9D-67
Dhcp Enabled. . . . . : No
IP Address. . . . . : 192.168.10.200
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . : 192.168.0.1

Ethernet adapter Local Area Connection 5:
Connection-specific DNS Suffix . : kofax.com
Description . . . . . : Intel(R) 82540EM Based Network Connection #2
Physical Address. . . . . : 00-50-45-00-9D-66
Dhcp Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
IP Address. . . . . : 10.15.168.14
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . : 10.15.0.1
DHCP Server . . . . . : 10.1.0.20
DNS Servers . . . . . : 10.1.0.21
                          10.1.0.30
                          10.1.0.20
Lease Obtained. . . . . : Donnerstag, 21. Juni 2007 07:53:21
Lease Expires . . . . . : Freitag, 22. Juni 2007 07:53:21

C:\Documents and Settings\WI>arp -s 192.168.10.201 00-20-4a-84-cd-d0
    
```

- Try to open Telnet connection with Port 1. If this fails, open it with Port 9999.
- Open Telnet connection with Port 9999.

```

Command Prompt
Ethernet adapter Local Area Connection 5:
Connection-specific DNS Suffix . : kofax.com
Description . . . . . : Intel(R) 82540EM Based Network Connection #2
Physical Address. . . . . : 00-50-45-00-9D-66
Dhcp Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
IP Address. . . . . : 10.15.168.14
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . : 10.15.0.1
DHCP Server . . . . . : 10.1.0.20
DNS Servers . . . . . : 10.1.0.21
                          10.1.0.30
                          10.1.0.20
Lease Obtained. . . . . : Donnerstag, 21. Juni 2007 07:53:21
Lease Expires . . . . . : Freitag, 22. Juni 2007 07:53:21

C:\Documents and Settings\WI>arp -s 192.168.10.201 00-20-4a-84-cd-d0

C:\Documents and Settings\WI>telnet 192.168.10.201 1
Connecting To 192.168.10.201...Could not open connection to the host, on port 1:
Connect failed

C:\Documents and Settings\WI>telnet 192.168.10.201 9999
    
```

- For setup, press **Enter** within two seconds, and proceed with [Assign IP address using Telnet.](#)

**Important** If this procedure does not resolve the issue, return the GSM box to factory.

## LEDs

This section describes the significance of different LEDs.



**POWER LED**

GSM-module powered on

**GSM LED**

PWM (200ms High/1800ms Low) Networks searching

PWM (1800ms High/200ms Low) Idle&Data transfer

Always High Voice&CSD calling

**LAN LED**

Link LED Left Side		Activity LED Right Side	
Color	Meaning	Color	Meaning
Off	No Link	Off	No Activity
Amber	10 Mbps	Amber	Half Duplex
Green	100 Mbps	Green	Full Duplex

## Chapter 5

# Specific registry keys

Set the following Windows registry keys/values:

- GsmBoxType: 5
- GsmBoxAddress: IP address of GSM box
- GsmBoxPort: 5004
- GsmBoxResetPort: 0

## Chapter 6

# Approvals

The GSM-Module (Quectel UG95) have following approvals for GSM:

- RoHS Compliant
- CE/GCF (Europe)
- DoC (Russia)
- RCM (Australia)
- FCC/PTCRB/AT&T (North America)
- IC/Rogers (Canada)
- ICASA (South Africa)

In some countries, it is necessary to have the approval not only for the GSM-module but also for the whole device (including antenna). Please check legal policies before using this device.

Safety and EMC approvals for Model 360 are available on demand from Kofax.

## Chapter 7

# Restrictions

Model 360 is only intended for SMS transmission/reception.