Device Model for Haier Air-related Appliances

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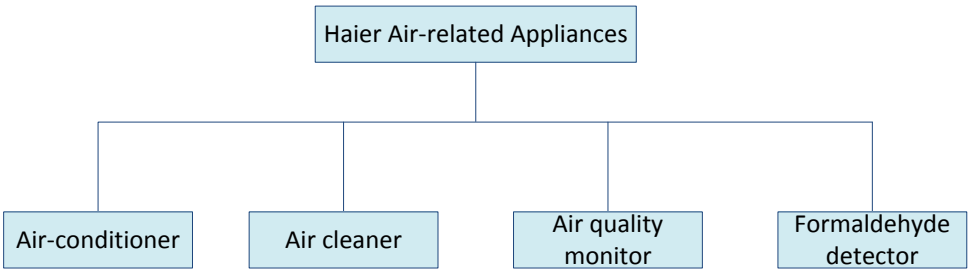
1. Scope

This document describes the device model for Haier air-related appliances. The device model includes the parameters and operations that all air-related appliances have in common and appliance specific parameters and operations.

Haier air-related appliances include air-conditioner, air cleaner, air quality monitor and formaldehyde detector.



2. Common Parameters and Operations

2.1 Parameters

	Name		Type	Value	User Writable	Description
1	Common parameters for smart home appliances	deviceId*	string	/	False	the unique identifier for a physical appliance
2		deviceType*	string	/	False	type of an appliance
3		name*	string	/	True	name of an appliance
4		model	string	/	False	model of an appliance
5		manufacturer*	string	/	False	manufacturer of an appliance
6		version	string	/	False	version of an appliance
7		location*	string	/	True	location of an appliance
8		errSatate*	int	-1: no error >0: error code	False	error status of an appliance

	Name		Type	Value	User Writable	Description
9		message	string	≤ 2048 chars	False	content of an appliance notification message
10		messageStatus	int		False	HTTP status code
11		status*	int	1-ON 0-OFF	True	ON/OFF status of an appliance
12	Common parameters for air-related appliances	indoorTemp*	int	0～55℃	False	current temperature indoors
13		indoorHumidity*	int	0～100 (%)	False	current humidity indoors
14		powerOnHour	int	/	True	“hour” part of the time to power on a appliance
15		powerOnMinute	int	/	True	“minute” part of the time to power on a appliance
16		powerOffHour	int	/	True	“hour” part of the time to power off a appliance
17		powerOffMinute	int	/	True	“minute” part of the time to power off a appliance

Note： denotes the mandatory parameters of an appliance.*

2.2 Operations

	Name	Parameter	Description of Parameter	Description of Operation
1	getProperty (string deviceId)	deviceId	id of target appliance	Get all parameters of target appliance
2	getProperty (string deviceId, string proID)	deviceId	id of target appliance	get specified parameter of target appliance
		proID	id of target parameter	
3	getAlarmMsg(string deviceId)	deviceId	id of target appliance	Get all alarm message of target appliance
4	stopCurrentAlarm (string deviceId)	deviceId	id of target appliance	stop current alarm of target appliance
5	setProperty (string deviceId, array proPair)	deviceId	id of target appliance	set specified parameter of target appliance
		proPair	array (id, value) of target parameter	
6	unbound (string deviceId)	deviceId	id of target appliance	unbound target appliance

3. Air-conditioner

3.1 Parameters

	Name	Type	Value	User Writable	Description
1	mode*	int	1-Automatic 2-Cooling 3-Heating 4-Ventilating 5-Drying	True	running mode of air-conditioner
2	targetTemp*	int	16～30℃	True	target indoor temperature
3	targetHumidity	int	0～100 (%)	True	target indoor humidity
4	fanSpeed*	int	1-High 2-Medium 3-Low 4-Automatic	True	speed of the fan
5	fanDirectionVertical*	int	1-fix 2- vertical position 1 3- vertical position 2 4- vertical position 3 5- vertical position 4 6- vertical position 5 7-free	True	vertical direction of the fan
6	fanDirectionHorizontal*	int	1- horizontal position 1 2- horizontal position 2 3- horizontal position 3 4- horizontal position 4 5- horizontal position 5 6- horizontal position 6 7- horizontal position 7 8- free	True	horizontal direction of the fan
7	humidificationEnabled	bool	/	True	On/Off status of humidification function
8	electricHeatingEanbled	bool	/	True	On/Off status of electric heating function
9	childLockEnabled	bool	/	True	On/Off status of child-lock function

	Name	Type	Value	User Writable	Description
10	cloudControlEnabled	bool	/	True	On/Off status of Control-by-Cloud function

3.2 Operations

No more specific operations.

4. Air cleaner

4.1 Parameters

	Name	Type	Value	User Writable	Description
1	mode*	int	0-Mnual 1-Automatic 2-Sleep 3-Serilization 4- Automatic + Serilization 5- Sleep + Serilization 6-Fresh 7-Humidification+ Cleaning 8-Cleaning 9-Fast Cleaning	True	running mode of air cleaner
2	fanSpeed*	int	1-Automatic（Grade 1） 2-Mute（Grade 2） 3-Low（Grade 3） 4-Medium（Grade 4） 5-High（Grade 5）	True	speed of the fan
3	fanDirection	string	1-Normal 2-Swing 3-Free	True	direction of the fan
4	airQualityLevel*	int	1-Grade 1（very good） 2- Grade 2（better） 3- Grade 3（average） 4- Grade 4（worse） 5- Grade 5（very bad）	False	dirty grade of the air indoors

	Name	Type	Value	User Writable	Description
			6- Grade 6（severe）		
5	humidificationEnabled	bool	/	True	On/Off status of humidification function
6	childlockEnabled	bool	/	True	On/Off status of child-lock function
7	filterReplaceEanbled	bool	/	False	On/Off status of filter replacement reminding function
8	tempSensorEnabled	bool	/	True	On/Off status of temperature sensor
9	humiditySensorEnabled	bool	/	True	On/Off status of humidity sensor
10	pm2.5SensorEnabled	bool	/	True	On/Off status of PM2.5 sensor
11	ch2oSensorEnabled	bool	/	True	On/Off status of CH_2O sensor
12	vocSensorEnabled	bool	/	True	On/Off status of VOC sensor
13	co2SensorEnabled	bool	/	True	On/Off status of CO_2 sensor
14	pm2.5Value	int	1～500 (ug/m^3)	False	Current PM2.5 value
15	ch2oValue	int	1～10000 (ug/m^3)	False	Current CH_2O value
16	vocValue	int	1～1023	False	Current VOC value
17	co2Value	int	1～10000 (PPM)	False	Current CO_2 value

4.2 Operations

No more specific operations.

5. Air Quality Monitor

5.1 Parameters

	Name	Type	Value	User Writable	Description
1	vocLevel*	int	1-Perfect 2-Better 3-Medium	False	current VOC grade

	Name	Type	Value	User Writable	Description
			4-Bad		
2	vocValue*	int	0～1023	False	current VOC value
3	pm2.5Level*	int	1-Perfect 2-Better 3-Medium 4-Bad	False	current PM2.5 grade
4	pm2.5Value*	int	0～500	False	current PM2.5 value
5	ch2oValue*	int	1～10000 (ug/m ^{3})	False	current CH_2O value
6	studyEnabled	bool	/	True	On/Off status of study function
7	irMode	int	1-Control 2-Study	True	mode of IR
8	irEnabled	bool	/	True	On/Off status of IR
9	ch2oEnabled	bool	/	True	On/Off status of CH_2O sensing
10	vocEnabled	bool	/	True	On/Off status of VOC sensing
11	pm2.5Enabled	bool	/	True	On/Off status of PM2.5 sensing
12	humidityEnabled	bool	/	True	On/Off status of humidity sensing
13	tempEnabled	bool	/	True	On/Off status of temperature sensing

5.2 Operations

No more specific operations.

6. Formaldehyde Detector

6.1 Parameters

	Name	Type	Value	User Writable	Description
1	ch2oValue*	int	1～10000 （ug/m ^{3})	False	current CH_2O value
2	vocValue*	int	0～20000 （PPM）	False	current VOC value
3	pm2.5Value*	int	0～500 （ug/m ^{3})	False	current PM2.5 value
4	co2Value	int	1～20000 （PPM）	False	current CO_2 value
5	coValue	int	1～20000 （PPM）	False	current CO value
6	studyEnabled	bool	/	True	On/Off status of study function

	Name	Type	Value	User Writable	Description
7	irMode	int	1-Control 2-Study	True	mode of IR
8	batteryState*	int	1-Full 2-Low 3-Charging	False	state of battery

6.2 Operations

No more specific operations.