

Radio Communication Equipment

Item No.	Specifications Required																							
	<p>Radio Communication Product is a set of digital radio-communication working within the VHF/UHF range, which includes a) equipment – repeater, mobile and fixed radios, handheld radios, integrated GPS modules, receiver/transmitter antennas with connectors and cables; b) Software – for full administration of radio-system, voice and data recording, equipment programming and configuration, network operation, etc.; Product shall ensure voice communication, data exchange through the radio-channels, including data of Global Positioning System (GPS) and compatibility with e-map; Product shall be in full compliance and compatible with the Motorola DMR equipment (systems) already used by the final beneficiary, suitable with the maintenance policy of the Ministry of Internal Affairs of Georgia; The product shall have the ISO, origin and quality certificates, which shall be submitted in the course of tender; Contractor shall deliver the equipment to the place of destination (DDP incoterms); Contractor shall be an official dealer of the given brand. It is necessary to submit the official certificate of the dealer; Installation works will be carried out by the relevant personnel of the Ministry of Internal Affairs; Contractor shall ensure the proper packaging of the procured object that will protect it from damage during transportation; The product shall be subject to manufacturer’s warranty for 1-year. In the case of defective/damaged equipment (while observing the rules of operation) the Contractor shall replace the product at his/her own expense (including the costs for international transportation) no later than within 20 calendar days from the date of receiving the notification from beneficiary; Product shall be delivered within 90 days from the date of contract formalization.</p>																							
1	<p>Digital DMR standard repeater x 7 units Required Model MOTOTRBO DR3000</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Description</th> <th style="text-align: center;">Specifications</th> </tr> </thead> <tbody> <tr> <td>Power</td> <td>1-50W</td> </tr> <tr> <td>Frequency Range</td> <td>136-174 MHz</td> </tr> <tr> <td>Power supply</td> <td>From 100 up to 250 VAC / 50Hz</td> </tr> <tr> <td>Chanel encryption capability</td> <td>yes</td> </tr> <tr> <td>Digital encryption</td> <td>Yes</td> </tr> <tr> <td>GPS data transmit/receive</td> <td>Yes</td> </tr> <tr> <td>Digital/analog mode</td> <td>Yes</td> </tr> <tr> <td>Remote (TCP/IP) control</td> <td>Yes</td> </tr> <tr> <td>Group calls / individual calls</td> <td>Yes</td> </tr> <tr> <td>Operational temperature</td> <td>-30°C- to +60°C</td> </tr> </tbody> </table>		Description	Specifications	Power	1-50W	Frequency Range	136-174 MHz	Power supply	From 100 up to 250 VAC / 50Hz	Chanel encryption capability	yes	Digital encryption	Yes	GPS data transmit/receive	Yes	Digital/analog mode	Yes	Remote (TCP/IP) control	Yes	Group calls / individual calls	Yes	Operational temperature	-30°C- to +60°C
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2	<p>Portable DMR standard radio (quantity see below) Required Models: Handheld radio without keypad – MOTOTRBO DP4401 Handheld radio with half keypad – MOTOTRBO DP4601</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Description</th> <th style="text-align: center;">Specifications</th> </tr> </thead> <tbody> <tr> <td>Integration into the groups</td> <td>Yes</td> </tr> <tr> <td>GPS data transmit/receive</td> <td>Yes</td> </tr> <tr> <td>Chanel encryption capability</td> <td>Yes</td> </tr> </tbody> </table>		Description	Specifications	Integration into the groups	Yes	GPS data transmit/receive	Yes	Chanel encryption capability	Yes														
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	Voice digital encryption	Yes
	Channels (frequencies) remote control	Yes
	Battery operational time	not less than 10h
	Transmit power	1-5W
	Detailed requirements and quantity	
	Handheld radio without keypad	20 units
	Handheld radio with half keypad	16 units
	VHF Antenna with GPS (142-152 MHz 147.0 MHz)	29 units
	VHF Antenna with GPS (147-157 MHz 152.0 MHz)	29 units
	VHF Antenna with GPS (152-163 MHz 157.5 MHz)	58 units
	DP BATT IMP IP67 LIION 1650T	36 units
	IMPRES SUC SMPS-CE EU 220/240V	36 units
	Appropriate Portable QRG	36 units
	IMPRES Li-Ion 1650mAh CE Battery	36 units
	SUBMERSIBLE REMOTE SPEAKER MIC	36 units
	Extended warranty for above mentioned hand held radios - 3 Year	36 units
3	Mobile DMR standard digital radio Required Model – MOTOTRBO DM4601	
	Description	Specifications
	Frequency Range	136-174 MHz
	GPS data transmit/receive	yes
	Chanel encryption capability	yes
	Voice digital encryption	yes
	Channels (frequencies) remote control	yes
	Microphone	Keypad MIC/Trunnion/10FT CBL
	Power	1-50W
	Remote (TCP/IP) control	Yes
	Detailed requirements and quantity	
	Mobile radio for vehicle	12 units
	Keypad mic with 10FT CBL	12 units
	LINE CORD	12 units
	Appropriate Mobile QRG	12 units
	STANDARD MOBILE	12 units
	Mobile Combination GPS/Antenna, BNC (142-152 MHz 147.0 MHz)	6 units
	Mobile Combination GPS/Antenna, BNC (147-157 MHz 152.0 MHz)	6 units
	Mobile Combination GPS/Antenna, BNC (152-163 MHz 157.5 MHz)	12 units
Extended warranty for the mobile radios - 3 Year	12 units	

4	Stationary DMR standard radio Required Model – MOTOTRBO DM4601	
	Description	Specifications
	Frequency Range	136-174 MHz
	GPS data transmit/receive	yes
	Chanel encryption capability	yes
	Voice digital encryption	yes
	Channels (frequencies) remote control	yes
	Microphone	Keypad MIC/Trunnion/10FT CBL
	Power	1-50W
	Remote (TCP/IP) control	Yes
	Detailed requirements and quantity	
	Mobile radio stationery stand	4 units
	KEYPAD MIC/TRUNNION/10FT CBL	4 units
	LINE CORD EU	4 units
	Appropriate Mobile QRG	4 units
	STANDARD MOBILE	4 units
	Power Supply	4 units
Extended warranty for the stationary radios - 3 Year	4 units	
5	Portable radio charger (EURO Plug)	
	Description	Specifications
	Multiunit charging	yes
	Number of pockets	6
	Input voltage	100-250 VAC / 50Hz
	Detailed requirements and quantity	
	IMPRES Multi Unit Charger (Euro Plug)	4 units
	Charger Interface Unit for IMPRES MUC	4 units
6	Additional parts	
	Repeater Receive Antenna	
	142–152MHz	2 units
	147-157MHz	1 units
	152-163MHz	4 units
	Description	Specifications
	Working frequency	142–152MHz, 147-157MHz, 152-163MHz
	2 dipole	3/5.5 DB amplify
	Antenna holder	full set

	Send/receive antenna	
	142–152MHz	3 units
	147-157MHz	2 units
	152-163MHz	6 units
	Description	Specifications
	Working frequency	142–152MHz, 147-157MHz, 152-163MHz
	All direction antenna	3/5.5 decibel amplify
	Antenna holder	full set
	Coaxial cable x 700m	
	Description	Specifications
	Coaxial cable	50 Ohm high resistance (RG213/U)
	Connector	
	N Female connector type for RG 8/U coax	25 units
	N Male connector type for RG 8/U coax	10 units
	BNC Male connector type for RG 8/U coax	15 units
	Description	Specifications
	N Female connector type for RG 8/U coax	RFN-1024-1
	N Male connector type for RG 8/U coax	RFN-1002-1N
	BNC Male connector type for RG 8/U coax	RFB-1101-1FN
7	Software with relevant cables (programmer) x 1 set	
	Programming cables relevant to the radio-station and repeater (one type for each different radio-stations) with USB connector and the relevant software.	
	Portable Programming cable	1 unit
	Mobile Programming Cable (Control head Connection)	1 unit
	Mobile Programming Cable (Rear Connection)	1 unit
	Repeater Programming Cable	1 unit
	Map Programming/Test Cable	1 unit
	Software RDAC Software CD	1 unit
	Software GPS/Tuner DVD EMEA	1 unit