Attachment No 2 a) do SWZ
Procedure No 26/Z-58/7227/PN/2021/D

Supplier data:		, dnia
Name:		
Headquarters	······································	
Data of the de	eclarant:	
First name and	d last name:	
The manner of	of representing the Supplier: power of attorney/ entry in the register or records*)	

TECHNICAL FORM OF THE SUBJECT OF THE ORDER

Attention. The Supplier is obliged to indicate in the table, in the column "Specification of the subject of the agreement", the offered subject of the agreement by its unambiguous definition (for example. manufacturer, name, type, catalog number) and accurately describe its characteristics, technical parameters and functional features!

Table no 1

Characteristics, technical parameters, functional features of the subject of the agreement t and the quantity ordered		Specification of the subject of the order offered and the quantity offered	
Delivery to the customer's premises of a brand new, unused communication system	Ordered quantity 1 set	(for example: manufacturer, name type, catalog number)	Quantity offered set
The system has:			
A. Factory new, unused radio module defined by software in built-in version, with accessories – 5 set			
I. Technical parameters			
The minimum operating frequency range: 1.98-2.7GHz			
2. Output power: 2x 100mW			
3. Possibility to connect a radio amplifier: 2W, 5W			
4. Maximum dimensions of the radio module: 50mm x 50mm x 20mm			
5. The maximum weight of the radio module: 90g			
6. Supply voltage: 818V			
7. Power consumption up to 9.5W			
8. Sensitivity of the telemetry receiver: -114dBm			
Possible bitrate MESH MIMO 87 Mbps			
 Transmitted and received data latency possible <160 ms 			
11. Equipment:			
a) Ethernet cable			
b) Power cable			
c) Wiring for connecting amplifiers			
12. Possibility of transmitting in two polarities (MIMO)			
13. Tuning step: 125 kHz			

- 14. Working temperature: -20 ° C to + 60 ° C with cooling
- 15. Maximum ambient humidity 85% non-condensing
- 16. Internal microSD 128GB
- 17. Inputs / outputs
 - a) RF COFDM transceiver 1 SMP (male 50 Ω)
 - b) RF COFDM transceiver 2 SMP (male 50 Ω)
 - c) RF telemetry transceiver SMP (male 50Ω)
 - d) Video SD/HD-SDI 1 MCX (female 75Ω)
 - e) Video SD/HD-SDI 2 MCX (female 75Ω)
 - f) USB control and download 3.0 Micro-B
 - g) Power input
 - h) Power output
 - i) 2 x Microphone / line input
 - j) Audio speaker output
 - k) IO data control input / output (7 pins)
 - I) Gigabit Ethernet 10/100 Mb/s
 - m) RS232 interface

II. Program parameters

- 1. COFDM transmission coding
- 2. Carrier modulation: BPSK, QPSK, 16QAM, 64QAM
- 3. Connection topology: mesh (MESH)
- 4. Possibility of transmission compression: H.264
- 5. Support for SDRAPP-MESH software
- 6. Ability to make settings via the web GUI
- 7. Possible levels of access: user, superuser and administrator accounts
- 8. Support for SD card with a capacity of 128 GB
- 9. Possibility of transmission encryption: AES 256

B. Mesh application boundle for SOL8SDR software license5 license

I. Program parameters:

- 1. 1.25 to 20 MHz bandwidth
- 2. QAM64 adaptive modulation
- 3. MIMO transmission possible
- 4. The minimum number of supported network nodes: 20
- 5. Possibility of two-way data exchange in one channel
- 6. Topology architecture self-healing and selfformatting
- 7. Node addressing: IP
- 8. Ability to control parameters in the map-based application
- 9. Perpetual license

C. Software license for AES256/AES128 encryption and decryption in radio modules - 6 license

I. Program parameters:

- 1. AES256 encryption and decryption
- 2. AES2128 encryption and decryption
- 3. The possibility of implementing the item from the order description in radio modules
- 4. Perpetual license

D. Factory new, unused radio sdr module with accessories– 1 set

I. Technical parameters

- 1. The minimum operating frequency range is 1.98-2.55 GHz
- 2. Possible output power: 2x5W
- 3. Maximum sizes: 160mm, 160mm, 70mm
- 4. Minimum degree of protection: IP66
- 5. Maximum weight up to 2.5 kg
- 6. Software configurable RF bandwidth 1.25, 1.5, 1.75, 2.5, 3.0, 3.5, 5.0, 6.0, 7.0, 8.0, 10.0, 12, 0, 14.0, 16.0, 20.0 MHz

7. Tuning step: 125 kHz Supply voltage: 8..18V 9. Power consumption up to 60W 10. Receiver sensitivity: -98dBm (BW 2.5MHz / BPSK 1/2) 11. Equipment: a) Ethernet cable b) Power cable c) Microphone d) Control cable e) Software to control all parameters in a map based application f) Antennas with a gain of 4.5 dBi 4 pcs 12. Possibility of transmitting in two polarities (MIMO) 13. Possible bitrate 87 Mb/s (MESH topology) 14. Minimum operating temperature range: -20 ° C to + 50 °C 15. Built-in GPS receiver 16. 64Gb of on-board storage with store & forward functionality

- a) Antenna A Channel 1 receive only
- b) Antenna B Channel 1 switched transmit/receive
- c) Antenna C Channel 2 receive only
- d) Antenna D Channel 2 switched transmit/receive Wejścia /wyjścia
- e) GPS antenna interface SMA female

18. Inputs/Outputs

- a) Power and Ethernet: 6-way Amphenol 38999 series 3
- b) Ethernet: RJ45
- c) Config & data: 22-way Amphenol 38999 series 3
- d) Camera video & power 4-way Amphenol 62GB

- e) SDI/HD-SDI BNC female 75Ω
- f) USB Type A

II. Program parameters

- 1. COFDM transmission coding
- 2. Carrier modulation: BPSK, QPSK, 16QAM, 64QAM
- 3. Connection topology: MESH
- Transmission compression capability: H.264 AVC / H.264 / MPEG-4 Part 10 High Profile 4.0
- 5. SDRAPP-MESH suport
- 6. Remote control: Web browser GUI and external application
- 7. Possibility of transmission encryption: AES 256
- 8. Possibility of IP addressing: static and dynamic
- 9. Supports two 1920x1080p30 video streams simultaneously

E. Factory new, unused radio amplifier module 5w power with accessories – 10 set

I. Technical parameters

- 1. Linear RMS characteristic
- 2. Power gain> 20dB
- 3. Efficiency> 16%
- 4. Integrated transmit / receive switch
- 5. Low noise RF return path, gain 4dB
- 6. Power 10-18V DC
- 7. Current consumption up to 3.5A at 10V
- 8. Working temperature -10..50 °C
- 9. 50Ω impedance
- 10. Weight < 150g
- 11. SMA-F antenna connectors
- 12. 7-pin control connector
- 13. 2 dBi gain antennas included
- 14. Possibility of connection with radio modules of the subject from the order description

The document should be submitted in an electronic form with a qualified electronic signature, a trusted signature or a personal signature by an authorized person

*) delete as appropriate