

BILL OF QUANTITY (BOQ)

Pembangunan Sistem Pemantauan Lalu Lintas Kapal di Danau Toba Tahap II
Tahun Anggaran 2023

No.	URAIAN KEGIATAN	SATUAN	VOLUME	HARGA SATUAN
1	2	3	4	5
A	A. LPS Operator Display			
	<i>Terdiri Dari :</i>			
A.1	PC Workstation for LPS Operator	Set	1,00	
A.2	LCD Monitor 27"	Unit	2,00	
A.3	LCD Monitor 55"	Unit	1,00	
A.4	PC Workstation for Admin	Set	1,00	
A.5	LCD Monitor 27"	Unit	2,00	
A.6	LCD Monitor 55"	Unit	1,00	
B	VHF Terminal Console & Accessories, including :	Set	1,00	
	- VHF Terminal Console			
	- Goose Mic, Headset & Foot Switch			
C	AIS System Client (software)			
C.1	LPS Client Console Software	Set	1,00	
C.2	ENC	Set	1,00	
D	50 Watt VHF Base Station Radio			
D.1	VHF Antenna Kit	Set	1,00	
D.2	50 Watt VHF Base Station Transceiver, Multi Channel Dual Watch	Set	1,00	
D.3	Cable & Accessories (Arrester & Connector)	Set	1,00	
E	LPS System Software			
	LPS System with Record & Replay	Set	1,00	
F	Peralatan Penunjang			
F.1	- PC Server	Set	1,00	
F.2	- LCD KVM	Set	1,00	
F.3	- NTP Server	Set	1,00	
F.4	- Master Clock for UTC & Local Time	Set	2,00	
F.5	- UPS 6 KVA	Set	1,00	
F.6	- AVR 6 KVA	Set	1,00	
F.7	- STP Ethernet Cable, Shielded Connector & Arrester	Set	1,00	
F.8	- PDB 220V/50 Hz	Set	1,00	
F.9	- Workstation Workplace	Set	2,00	
F.10	- Meja Meeting & Kursi	Set	1,00	
F.11	- Filling Cabinet	Set	1,00	
F.12	- Raised Floor	m2	24,00	
F.13	- Radio Link (Paropo, Tiga Ras)	Set	2,00	
F.14	- Internet Connection (FIXED IP)	Lot	1,00	
G	AIS Transponder Base Station			
G.1	VHF Antenna Kit	Set	1,00	
G.2	AIS Base Station Transponder	Set	1,00	
G.3	Cable & Accessories (Arrester & Connector)	Set	1,00	
H	50 Watt VHF Base Station Radio			
H.1	VHF Antenna Kit	Set	1,00	
H.2	50 Watt VHF Base Station Transceiver, Multi Channel Dual Watch	Set	1,00	
H.3	Cable & Accessories (Arrester & Connector)	Set	1,00	
I	Tower for AIS & VHF (30m Monopole SST)	Set	1,00	
	- Tower 30m Monopole SST			
	- Pondasi & Erection			
J	Peralatan Penunjang			
J.1	- Rack Server 20U	Set	1,00	
J.2	- Manageable Switch	Set	1,00	
J.3	- Router	Set	1,00	
J.4	- UPS 3 KVA	Set	1,00	
J.5	- Stabilizer 5 KVA	Set	1,00	
J.6	- Internet Connection ORBIT for MUARA	Lot	1,00	

K	AIS Transponder Base Station			
K.1	VHF Antenna Kit	Set	1,00	
K.2	AIS Base Station Transponder	Set	1,00	
K.3	Cable & Accessories (Arrester & Connector)	Set	1,00	
L	50 Watt VHF Base Station Radio			
L.1	VHF Antenna Kit	Set	1,00	
L.2	50 Watt VHF Base Station Transceiver, Multi Channel Dual Watch	Set	1,00	
L.3	Cable & Accessories (Arrester & Connector)	Set	1,00	
M	Tower for AIS & VHF (30m Monopole SST)	Set	1,00	
	- Tower 30m Monopole SST			
	- Pondasi & Erection			
N	Peralatan Penunjang			
N.1	- Rack Server 20U	Set	1,00	
N.2	- Manageable Switch	Set	1,00	
N.3	- Router	Set	1,00	
N.4	- UPS 3 KVA	Set	1,00	
N.5	- Stabilizer 5 KVA	Set	1,00	
N.6	- Internet Connection ORBIT for PAROPO	Lot	1,00	
P	Installation	Lot	1,00	
Q	Commissioning	Lot	1,00	
R	On Site Training	Lot	1,00	