



International Centre for Free and Open Source Solutions

Swatantra,
South Pavilion, Sports Hub, Karyavattom,
Trivandrum - 695 581
Kerala, India.
Phone No: +91 471 2700013
Email: info@icfoss.in

NOTICE INVITING TENDER

For the supply ULPLoRa Board

Tender No: ICFOSS/32/2019-TC4(IT)-Part(1) Dated 10/12/2025

Name of the material	ULPLoRa Board - PCB Manufacturing, PCB Assembly, and Component Sourcing
Quantity	100 units
Delivery time	Within 4 weeks
Availability of Tender documents	Can be downloaded from the website http://icfoss.in up to 19/12/2025 03:00 PM
Date of Publishing	11/12/2025
Last date & time of submission of bids	19/12/2025 at 04:00PM
Date & time of opening of bids	19/12/2025, 04:30PM
EMD (Earnest Money Deposit) Amount	1 % (rounded to the nearest rupees) of the total Quoted amount or Rs.1,500/- whichever is maximum.
Tender Fee	Rs. 400/-
Tender Validity	6 Months



All communications shall be addressed to the Secretary & Registrar, ICFOSS, Swatantra, South Pavilion, Sports Hub, Karyavattom, Trivandrum - 695 581 Kerala, India.

The bid documents and other details may be downloaded from the website <http://icfoss.in/tenders>. All bid documents along with EMD and Tender fee are to be submitted as **hard copy** and in the designated covers/envelops on the below address. The EMD amount and non-refundable Tender fee of Rs. 400.00/- shall be remitted only as Demand Draft separately in favour of “**ICFOSS**” and payable at Thiruvananthapuram. Bidder should ensure that Tender fees and EMD are remitted as separate transactions/DDs, such that EMD should be a separate DD and Tender Fee shall be separate DD. Combined remittance for Tender fee and EMD shall be treated as invalid transaction. Only manual submission shall be entertained. Late submissions will not be considered

Secretary & Registrar

Swatantra,
South Pavilion, Sports Hub,
Karyavattom, Trivandrum - 695 581
Kerala, India.
Phone No: +91 471 2700013
Email : info@icfoss.in

Place: Trivandrum
Date: 11/12/2025

A handwritten signature in blue ink, appearing to read 'Bijumma'.

Procurement Officer
ICFOSS

Note: - If the date of opening of bids happens to be a holiday; the actual date for the same will be the next working day. No separate intimation in this regard will be issued.



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TENDER DOCUMENT

Tender No: ICFOSS/32/2019-TC4(IT)-Part(1) Dated 10/12/2025
(e-Procurement)

Item required

SI No	Items	Qty	Technical Details
1	ULP LoRa Board - PCB Manufacturing, PCB Assembly, and Component Sourcing	100 units	(The BoM and design files are in page 9 to 12)

Terms & Conditions

• **Submission of bids**

The Tender should be submitted with the following documents. The documents shall include the following:

- 1) Company registration details *
- 2) Detailed specification of the item quoted *
- 3) Copy of Permanent Account Number (PAN) *
- 4) Copy Of GST Registration Documents *



- 5) Signed Tender document with Tender form. *
- 6) Financial bid in format given in **Annexure I** (BOQ Template) *
- 7) Previous work orders supplied to any Government departments if any

- **Earnest Money Deposit (EMD)**

The Tender should submit an EMD amount of 1 % (rounded to the nearest rupees) of the total Quoted amount or Rs.1,500/- whichever is maximum. The EMD amount should only be remitted as Bank Drafts in favour of “**ICFOSS**” payable at Thiruvananthapuram and shall be enclosed with the bid.

Forfeiture of EMD

EMD of a tenderer shall be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender. Further, if the successful tenderer fails to furnish the required performance security within the specified period, its EMD shall be forfeited.

Refund of EMD

EMD furnished by all unsuccessful tenderer shall be returned to them without any interest whatsoever, at the earliest after expiry of the final tender validity period but not later than 30 days after conclusion of the contract. EMD of the successful tenderer shall be returned, without any interest whatsoever, after receipt of performance security from it as called for in the contract.

- **Tender Fee**

The Tender should submit an non-refundable Tender Fee of Rs.400/- . The Tender Fee should only be remitted as Bank Drafts in name of “**ICFOSS**” payable at Thiruvananthapuram and shall be enclosed with the bid.

- The supplier should supply the item with the same rate for a period of six months, against the purchase order.
- Item offered must be standard, proven product and already available in the market.
- Items offered must follow the required specifications
- Tender Documents shall be available only on the Internet and shall not be available for sales elsewhere.



- No price rise except Govt. levies will be allowed once order has been placed during the validity of the claim.
- Materials must be properly packed against any damage and insured except where hand delivery is proposed.
- Delivery / installation (If applicable) at the store should strictly be completed within the stipulated period of delivery
- Supplier will have to pay penalty on non-delivery after expiry of delivery date @ 1% of quoted price per week subject to maximum of 10%.
- Stores should be supplied to the “The Director, ICFOSS, Swatantra, South Pavilion, Sports Hub, Karyavattom, Trivandrum - 695 581 Kerala, India”.
- Equipment / stores supplied will be subjected to performance tests and in case the articles do not function / reach the expected standard, the suppliers are liable to replace the items free of cost at site. Cost of returning faulty goods will be to supplier’s account.
- Prompt and efficient after sales service must be rendered free within the guarantee period.
- If any equipment or part thereof is lost or rendered defective during transit, the supplier shall immediately arrange for the supply of the equipment or part thereof as the case may be.
- Purchaser reserves the right to cancel the order without any liability in case the materials are not supplied within the stipulated period or non - fulfillment of contractual obligations.
- **Payment:** The payment shall be made against completion of the entire supplies. The complete payment shall only be made against successful checking of the items supplied. In case of any defects the L1 bidder shall replace the item prior to the payment.
- **Warranty/ Support:** The items dispatched by the schedule of requirement shall carry minimum one year of replacement warranty from the date of acceptance of the items by ICFOSS. Warranty shall include free maintenance of the whole assembly supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should remain unattended for more than 48 hours. The defects, if any, during the guarantee/ warranty period are to be rectified free of charge by arranging the replacement wherever necessary. This includes cost, insurance, freight, custom duty, octroi, local taxes if any, should be borne by the bidder. A clear confirmation should be given for this item. The warranty certificate should be furnished along the bills.
- **Quoted rate:** The quoted rates shall be **inclusive** of all taxes and also the bidder shall include charges like duties, freight, handling, loading, unloading, insurance premium along with the quoted rate.



Note: ICFOSS holds the DSIR certificate which makes ICFOSS eligible for tax exemptions, Seller is responsible for cross checking the category codes and HSN numbers and apply appropriate exemptions

The Taxes may include (excise duty, sales tax, service tax, entry tax etc), duties, levies, freight, handling, loading, unloading, insurance premiums etc complete and shall remain firm throughout the contract period. No compensation will be paid in case of any upward revision in the statutory taxes and levies or introduction of new taxes and levies.

I / We hereby declare that I/We have read and understood the above instructions for the guidance of tenders.

Place :

Date :

Name, Signature and seal of Tenderer

Please submit the hardcopy of this document duly signed by the authorized signatory to the following address:

**Secretary & Registrar
ICFOSS
Swatantra,
South Pavilion, Sports Hub,
Karyavattom,
Trivandrum - 695 581
Kerala, India.**



TENDER FORM

To,
Secretary & Registrar
Swatantra,
South Pavilion, Sports Hub,
Karyavattom,
Trivandrum - 695 581
Kerala, India.

Dear Sir,

Sub: Bid form

Ref:

1. Having examined the conditions of tender contract, the receipt of which is hereby duly acknowledged. i/we undersigned, offer to supply all hardware & software and execute all works in conformity with tender specifications referred above and also to the said terms & conditions from the sum shown in the commercial bid(s) attached herewith and made part of this bid.
2. I / We undertake, if our Bid is accepted to complete delivery & commissioning of all Items specified in the contract within 4 weeks calculated from the date of issue of your purchase order/LOI.
3. We understand that you are not bound to accept the lowest or any bid, you may receive.
4. I / We affirm that I / We have enclosed the acceptance of all terms and conditions and also all brochures detailing the technical specification of the items quoted by me/us.
5. I / We hereby confirm that all the items supplied are in proper working condition and tested successfully.
6. The tender document for the works mentioned above have been obtained by me from the URL: <http://icfoss.in/tenders>, the official website of ICFOSS and I / we hereby certify that I / we have read the entire terms and conditions of the tender document, which shall form part of the contract agreement and I / we shall abide by the conditions / clauses contained therein.
7. My /our GST & PAN Numbers are as follows.
8. GST Registration Number.



9. PAN Number.

10. Dated/...../ 2025

11. Signature of

12. In capacity of

13. Duly authorized to sign the bid for and on behalf of

14. Witness 1.

15. Signature

16. Witness 2.

17. Signature

ULPLoRa_v2.1 PICK AND PLACE					
Reference Designator	X	Y	Rotation	Side	Value
C4	12.1634	38.1862	270	top	0.1uF
C5	11.7062	57.5918	0	top	100nF
C6	16.7862	38.1354	270	top	0.1uf
C7	7.535	37.225	270	top	0.1uF
D1	15.435	63.95	90	top	RED
D2	14.297	38.237	90	top	Green
D3	9.8266	38.1354	90	top	Blue
J2	21.765	2.71	0	top	Conn_Coaxial
Q1	11.085	64	90	top	DMG3415U-7
R2	16.085	60.525	0	top	330
R5	10.5632	54.8994	90	top	680K
R6	12.8492	54.8994	90	top	680K
SW1	12.1126	34.0206	180	top	RESET
U1	10.3854	9.5858	0	top	RFM95W-868S2
U4	12.265	46.365	315	top	ATMEGA328P-AU
Y1	7.693	53.477	90	top	8Mhz
C1	9.725	57.795	180	bottom	10uF
C2	9.471	64.399	180	bottom	22uF
L1	14.043	60.589	90	bottom	2.2uH
R1	6.677	8.265	180	bottom	10K
R4	12.011	33.919	270	bottom	10K
R7	14.485	37	0	bottom	330
R8	7.6422	35.062	90	bottom	330
U3	9.725	60.843	0	bottom	RP604K331A

ULPLoRa_v2.1 – BILL OF MATERIAL								
Item	Qty	Reference	Value	PART TYPE	PCB Footprint	Manufacturer Part Number	Manufacturer Name	Description
1	4	C4,C5, C6, C7	0.1uF	CAP	C_0805	MC0805B104J500CT	MULTICOMP PRO	SMD Multilayer Ceramic Capacitor, 0.1 µF, 50 V, 0805 [2012 Metric], ± 5%, X7R, MC
2	2	R5, R6	680K	RES	R_0805	MCWR08X6803FTL	MULTICOMP PRO	SMD Chip Resistor, 680 kohm, ± 1%, 125 mW, 0805 [2012 Metric], Thick Film, General Purpose
3	1	R2	330	RES	R_0805	MCWR08X3300FTL	MULTICOMP PRO	SMD Chip Resistor, 330 ohm, ± 1%, 125 mW, 0805 [2012 Metric], Thick Film, General Purpose
4	1	D1	RED	LED	LED_0805	OVS-0808	MULTICOMP PRO	LED, Red, SMD, 0805 [2012 Metric], 20 mA, 2.1 V, 625 nm
5	1	D2	Green	LED	LED_0805	KP-2012MGC	KINGBRIGHT	LED, Low Power, Green, SMD, 0805 [2012 Metric], 20 mA, 2.1 V, 570 nm
6	1	D3	Blue	LED	LED_0805	OVS-0803	MULTICOMP PRO	LED, Blue, SMD, 0805 [2012 Metric], 30 mA, 3.2 V, 465 nm
7	1	U4	ATMEGA328P-AU	IC	TQFP-32_7x7mm_Pitch0.8mm	ATMEGA328P-AU	Microchip Technology / Atmel	8-bit Microcontrollers - MCU 32KB In-system Flash 20MHz 1.8V-5.5V
8	1	U1	RFM95W-868S2	IC	XCVR_RFM95W-868S2	109990166	Seeed Studio	RFM95 Ultra-long Range Transceiver LoRa Module, 868MHz Frequency
9	1	Y1	8Mhz		RESONATOR-SMD	CSTNE8M00G550000R0	Murata Electronics	Resonators 8.0 MHZ 33PF
10	1	SW1	RESET		3x6x2.5mm_tact_switch	FSMSM	ALCOSWITCH - TE CONNECTIVITY	Tactile Switch, FSMSM, Top Actuated, Surface Mount, Rectangular Button, 180 gf, 50mA at 24VDC

11	1	JP1	JP		Pin_Header_Straight_1x02_Pitch2.54mm	DNP		
12	1	CON1	AVR-ISP-6		Pin_Header_Straight_2x03_Pitch2.54mm	DNP		
13	1	Q1	DMG3415U-7	MOSFET	SOT-23	DMG3415U-7	Diodes Incorporated	MOSFET P-CH 20V 4A SOT23-3
14	1	J3	JST		JST_PH_S2B-PH-K_02x2.00mm_Angled	DNP		
15	1	J9	I2C		JST_XH_B04B-XH-A_04x2.50mm_Straight	DNP		
16	1	J1	DIO_BRK		Pin_Header_Straight_1x03_Pitch2.54mm	DNP		
17	1	J2	Conn_Coaxial	Connector	U.FL-COAX	U.FL-R-SMT-1(10)	HIROSE(HRS)	RF / Coaxial Connector, U.FL Coaxial, Straight Jack, Surface Mount Vertical, 50 ohm, Brass
18	1	C1	10uF	CAP	C_0805	C0805C106M3PAC TU	KEMET	SMD Multilayer Ceramic Capacitor, 10 μ F, 25 V, 0805 [2012 Metric], \pm 20%, X5R, C Series KEMET
19	1	C2	22uF	CAP	C_0805	GRM21BR61E226 ME44L	MURATA	SMD Multilayer Ceramic Capacitor, 22 μ F, 25 V, 0805 [2012 Metric], \pm 20%, X5R, GRM Series
20	2	R1, R4	10K	RES	R_0805	MCWR08X1002FT L	MULTICOMP PRO	SMD Chip Resistor, 330 ohm, \pm 1%, 125 mW, 0805 [2012 Metric], Thick Film, General Purpose
21	2	R7, R8	330	RES	R_0805	MCWR08X3300FT L	MULTICOMP PRO	SMD Chip Resistor, 330 ohm, \pm 1%, 125 mW, 0805 [2012 Metric], Thick Film, General Purpose

22	1	L1	2.2uH	INDUCTOR	L_1210_Hand Soldering	BRL3225T2R2M	TAIYO YUDEN	WW INDUCTOR, 2.2UH 1.85A 20% 150MHZ
23	1	U3	RP604K331A	IC	DFN-12-1EP_2.7x3mm_Pitch0.5mm	RP604K331A-TR	Nisshinbo Micro Devices Inc.	DCDC CONVERTER ULTRA-LOW QUIESCE
24	1	J7	VIN		Pin_Header_Straight_1x01_Pitch2.54mm	DNP		
25	1	J5	UART		Pin_Header_Straight_1x06_Pitch2.54mm	DNP		
26	1	J8	RH_Connector		Pin_Header_Straight_1x11_Pitch2.54mm	DNP		
27	1	J4	LH_Connector		Pin_Header_Straight_1x12_Pitch2.54mm	DNP		

ANNEXURE I (BOQ TEMPLATE)

Date:

Tender Inviting Authority: ICFOSS					
Name of Work: For the supply of ULPLoRa Board					
Contract No: ICFOSS/32/2019-TC4(IT)-Part(1) Dated 10/12/2025					
Bidder Name :					
<u>PRICE SCHEDULE</u> (This BOQ template must not be modified/replaced by the bidder and the same should be submitted after filling)					
Sl. No.	Item Description (as specified in Tender documents)	Quantity	Units	BASIC RATE Per Kit (inclusive of all Taxes)	TOTAL AMOUNT (inclusive of all Taxes)
1	ULPLoRa Board - PCB Manufacturing, PCB Assembly, and Component Sourcing	100 units	No		
Grand Total (inclusive of all Taxes)					
Quoted Rate in Words					

Authorized Signature
(With Signature and Seal)

*Envelope should be marked with the heading 'SHORT TENDER FOR supply of ULPLoRa Board '