LIGHT RAIL TRANSIT AUTHORITY

BAGONG PILIPINAS

BIDS AND AWARDS COMMITTEE

Supplemental/Bid Bulletin No. 34

Series of 2026

Re: **Contract for the Supply of Two (2) Units Tetra Base Station Transceiver** Under **PR No. RS2-2701-008 and ITB No. 2610-123-01 with an ABC of ₱8,121,684.00**

TO ALL INTERESTED BIDDERS:

As inquired by prospective bidders, the following clarifications on the pertinent Bidding Documents are hereby made:

No.	Reference & Query	Amendments/Clarifications
1	**Tetra Base Station Transceiver** (R-8070) Model: **R-8070** or its equivalent **Type: R-8070 or its Equivalent** **Power Supply Voltage:** 24V **Power Consumption:** 35 W **Carrier:** 180 W typical for 40W RF output, 300 W maximum **Physical Dimension:** 432 mm x 88mm x 350 mm	**Tetra Base Station Transceiver** (R-8070) Model: **R-8070** or its equivalent **Power Supply Voltage:** +18 to +36Vdc (24 Vdc nominal) **Power Consumption:** 25 W Standby, 200 W typical for 40W rms RF output, 280 W maximum **Dimensions (HxWxD):** 89 x 484 x 387 mm **Weight:** Approximately 10 kg. **Form Factor:** 2U rack mount **Frequency bands:** 350-370/ 380-400/ 410-430/ 450-470/ 806-870 **Duplex Spacing:** 7, 8, 10, 18, 45 MHz **Carrier Spacing:** 25 Khz

		Frequency offset: -6.25, 0, +6.25 or +12.5 kHz **Modulation Format:** n/4 DQPSK **Data Rate:** 36 kbps
		Copies of the revised template and the updated OEM Product Sheet of the said item are hereto attached for reference marked collectively as **Annex "A".**
2	Incidental Services	In addition to the Incidental Services, the following shall likewise be required from the Contractor: The Supplier/ Contractor is required to provide the following services: **TETRA BASE TRANSCEIVERS R-8070:** 1. The Supplier/Contractor shall deliver all goods procured at LRTA Line 2 Central Warehouse for the usual inspection procedures of LRTA. 2. The Supplier/Contractor shall program the Tetra Base Transceivers (R-8070) frequencies between: 385.7375 Mhz to 395.2375 Mhz for Transmitter 1 (TX1) and 385.9875 Mhz to 395.4875 Mhz for Transmitter 2 (TX2). 3. The Supplier/Contractor shall install and terminate the new Tetra Base Transceivers (R-8070) using the existing cable for power supply. 4. The Supplier/Contractor shall conduct testing procedures and configure Tetra Base Transceivers (R-8070) (if needed) the inter-operability with the existing TETRA Radio System of LRT Line 2. 5. The Supplier/Contractor shall submit all testing results in two (2) original copies to LRTA. The Bid price for the Goods shall include the prices charged by the supplier/contractor for Incidental Services.

This serves an amendment to the Bidding Documents of the above stated procurement and accordingly modifies/clarifies and/or supersedes any and all provisions which are inconsistent herewith.

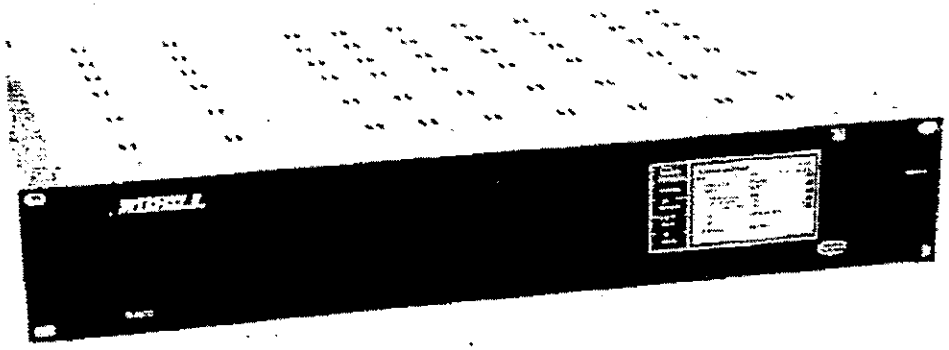
For further inquiries, please contact the BAC-Secretariat through Tel. No. 647-3484 to 86 loc. 29872; Mobile/Cellphone No. 09556578381 Email Address bacsec@lrta.gov.ph and/or Facsimile No. 647-3479 loc. 29906.

For guidance, reference and proper compliance.

Issued this 29th day of October 2026 at Pasig City, Philippines.

[redacted]

NICOLAS G. OMBAO
Chairperson, Bids and Awards Committee (BAC)



TECHINICAL SPECIFICATION:

Type: R-8070
Power Supply Voltage: +18 to 36Vdc (24 Vdc nominal)
Power Consumption: 25W standby, 200W typical for 40W rms RF output, 280W maximum
Dimension (HxWxD): 89mm x 484mm x 387mm
Weight: Approximately 10kg
Form Factor: 2U rack mount
Frequency bands: 350-370/380-400/410-430/450-470/806-870
Duplex spacing: 7, 8, 10, 18, 45 Mhz
Carrier spacing: 25 khz
Frequency offset: -6.25, 0, +6.25 or 12.5 kHz
Modular formation: n/4 DQPSK
Data Rate: 36 kbps

Item Description: TETRA Base Station Transceiver

ANNEX "A"

PRODUCT SHEET

TETRA Base Station Transceiver

KEY FEATURES

- High output power with continuous rating
- High receiver sensitivity
- Low power consumption
- Hot swappable
- Touchscreen display for configuration and monitoring
- Firmware remote upgradeable

General description

The R-8070 is the third generation Rohill TETRA Base Station transceiver, featuring 40 W_{RMS} output and up to triple diversity receivers within a compact rack-mount design.

It provides one TETRA carrier with a capacity of four simultaneous communication channels. The R-8070 is designed for installation within the Rohill Base Station System enclosure.

The R-8070 transceiver exceeds the TETRA Voice and Data RF performance specifications by considerable margins, and offers a powerful user interface for easier configuration, maintenance and troubleshooting.

The R-8070 is available for the frequency ranges 350 to 470 and 806 to 870 MHz.

Technical Overview

The advanced linearization technologies implemented in the power amplifier of the R-8070 result in both low power consumption and higher output power. The high efficiency ultimately results in a longer lifetime of the product, a lower energy bill and lower requirements for climate control. The R-8070 transceiver is designed for continuous duty and comes with the highest-in-class transmit power of 40 W_{RMS} (46 dBm) or 80 W_{PEAK}.

The R-8070 offers three receiver inputs for receiver diversity operation. If utilized, three-way receiver diversity results in a typical 7.5 dB gain improvement over single receiver operation. It also enables elegant low-loss antenna combining configurations. With the highly sensitive R-8070 receivers, static gain performance exceeds -119 dBm. Overall the R-8070 provides a typical uplink improvement of 14 dB compared to standard TETRA systems.

The touchscreen display offers a graphical user interface that is both intuitive and powerful in operation. The status and the configuration can be read from the touch screen without the need to connect a laptop. The status of the R-8070 can be displayed using different views for testing and troubleshooting. Alarms are immediately shown with explanation of the cause of the alarm.

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P.O. Box 378
7900 AJ Hoogeveen
The Netherlands
Telephone +31 528 765555
Fax +31 528 271844
www.rohill.com

PRODUCT SHEET

TETRA Base Station Transceiver

ORDERING SPECIFICATIONS

Deliverable system

R-8070 Transceiver
S-8070 Transceiver (Spare)
By ordering Spares also band specification is needed

Compliance

Air interface standard	TETRA V & D (EN 300 392) Class-A Rx (TU-50 and HT200)
Frequency bands	350-370 MHz; 380-400 MHz; 410-430 MHz; 450-470 MHz; 806-870 MHz
Duplex spacing	7, 8, 10, 18, 45 MHz
Carrier spacing	25 kHz
Frequency offset	-6.25, 0, +6.25 or +12.5 kHz
Channel access	4 slot TDMA
Modulation	π/4 DQPSK
Data rate	36 kbps

TECHNICAL SPECIFICATIONS

Receiver

Sensitivity, static	Typical -120 dBm; Minimum -119 dBm
Sensitivity, dynamic	Typical -112 dBm
Dynamic Range, maximum input level	-10 dBm (for BER of 0%)
Connectors	3 x female QLS

Transmitter

Transmit power	33-46 dBm, adjustable in 1 dBm steps
Intermodulation attenuation	< 70 dBc (within BSS)
RMS vector error	< 10% in any burst
VSWR of Output	< 1.4:1
Connector	Female N-type

Mechanical

Dimensions (H x W x D)	89 x 484 x 387 mm
Weight	10 kg
Form factor	2U rack mount

Power supply

Power supply voltage	+18 to +36 V_{DC} (nominal +24 V_{DC})
Power consumption	25 W standby 200 W typical (40 W_{RMS} RF output) 280 W maximum

Environmental

Operating temperature	-25 to 55 °C
Storage temperature	-40 to 85 °C
Humidity	< 95% at +40 °C, non-condensing

Specifications are typical values and subject to change without notice. This document replaces all previous versions; please contact your local Rohill representative for the latest version.
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