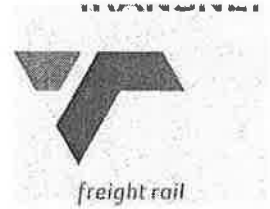


RFQ / TENDER

Tender No: JHB/11346



Vendor No: 11001386

BOARD LIST
BOARD LIST
TRANSNET FREIGHT RAIL
PROCUREMENT DEPARTMENT
2000

Purchaser : Audrey Tladi
Telephone : 011 584 0736
Fax Number:

Please quote reference:
K61/6000593468

Deliver to:
TFR Head Office
Supply Chain Services
2000 Johannesburg

Closing Date :20.08.2013
Validity Date :30.11.2013
RFQ No :6000593468

Currency: ZAR

RFQ/TENDER: CRAC/JHB/11346

SUPPLY: 50 DIGITAL COMMUNICATION INTERFACE CARDS (MODEMS) FOR
INFRA TCC TELECONTROL (TRANSNET FREIGHT RAIL)

BIDDERS ARE HEREBY INVITED TO QUOTE AND SUBMIT QUOTATION/S AT INYANDA
HOUSE 1, 21 WELLINGTON ROAD, PARKTOWN-JOHANNESBURG, NOT LATER THAN
THURSDAY 20 AUGUST 2013 AT 10:00 AM.

NB: ATTACHED SCOPE OF WORK AND DRAWINGS AS SPECIFICATIONS:
NB: SUPPLY QUOTE WITH SAMPLE.

1. RETURN OF QUOTATION/S PLEASE FAX: 011 774 9129 OR 774 9186 OR
E-MAIL TO: thuli.mathebula@transnet.net. NB TENDER BOX IS OPEN FOR SEVEN
DAYS PER WEEK FOR THE TENDERS AND QUOTATIONS SUBMISSIONS.

1.1 QUOTATION/S MUST BE SUBMITTED PUNCTUALLY AT 10:00 ON THE CLOSING DATE AND LATE QUOTATIONS WILL
NOT BE CONSIDERED.

1.2 IF DELIVERED BY HAND:

TRANSNET FREIGHT RAIL, SUPPLY CHAIN SERVICES
GROUND FLOOR
INYANDA HOUSE 1
21 WELLINGTON ROAD
PARKTOWN
2193

2. CONDITIONS:

DATE:

SIGNATURE OF TENDERER(S):

CONTACT PERSON: TEL No:

RFQ / TENDER

Tender No: JHB/11346 Page
Date : 31.07.2013 2

BOARD LIST
TRANSNET FREIGHT RAIL
PROCUREMENT DEPARTMENT

2.2 ANY PURCHASE ORDER PLACED AS A RESULT OF YOUR QUOTATION WILL BE SUBJECT TO THE STANDARD TERMS AND

CONDITIONS OF CONTRACT, FORM US7(LATEST), GENERAL TENDER CONDITIONS, FORM CSS5 (LATEST) AND CONDITIONS MENTIONED HEREIN.

2.3 TENDERERS MAY OFFER AN EARLIER VALIDITY DATE, BUT THEIR QUOTATION MAY, IN THAT EVENT, BE DISREGARDED FOR THIS REASON.

2.4 TENDERERS ARE REQUIRED TO OFFER ONLY FIRM PRICES. PRICES SUBJECT TO REVIEW IN TERMS OF CLAUSE 32 OF FORM US7 WILL ONLY BE CONSIDERED SHOULD THE DELIVERY PERIOD REQUIRED EXCEED 6 MONTHS.

2.5 BEST DELIVERY TIME MUST BE OFFERED.

2.6 DISCOUNT (TRADE DISCOUNT),VALUE ADDED TAX (VAT) MUCH BE SHOWN SEPARATELY.

2.7 TRANSNET RESERVES THE RIGHT TO NEGOTIATE PRICES AND COMMERCIAL ASPECTS AFTER THE CLOSING DATE OF THE QUOTATION.

2.8 DIRECT DELIVERY INTIMATES DELIVERY BEING EFFECTED INTO THE WAREHOUSE OR THE ACTUAL POINT OF SUPPLY AND SHOULD THEREFORE INCLUDE ANY TRANSPORTATION MODE DEEMED NECESSARY IN EXECUTING THIS METHOD OF DELIVERY BASIS IN ORDER TO MEET THE REQUIRED DELIVERY DATE. TAX CLEARANCE CERTIFICATES: The Regulations in

terms of the Public Finance Management Act, 1999: Framework for Supply Chain Management as published in Government Gazette No.25767 dated 5 December 2003, Clause 9 (1) (d), stipulate that the accounting authority of an institution to which these regulations apply must reject any bid from a supplier who fails to provide written proof from the South African Revenue that the supplier either has no outstanding tax obligations or has made arrangements to meet outstanding tax obligations.

Tenderers will be disqualified if a valid tax clearance certificate or written proof from the South African Revenue Service that supplier has made arrangements to meet outstanding tax obligations is not submitted with the tender. COMPANY DETAILS:

NAME OF COMPANY: _____ CONTACT PERSON: _____ TEL. _____

No. _____ FAX No. _____ REG. No. _____ BROAD BASE BLACK

ECONOMIC EMPOWERMENT (BBBEE) Transnet fully endorses and supports the Government's Broad-based Black Economic Empowerment Programme and it is strongly of the opinion that all South African Business Enterprises have an equal obligation to redress the past. Transnet will therefore prefer to do business with local business enterprises who share these same values. Transnet will endeavour to do business with enterprises that possess a BBBEE "recognition level" of at least a level 5. Transnet urges Tenderers (large enterprises and QSE's - see below) to have themselves accredited by any one of the various Accreditation Agencies available, who do their BBBEE ratings in accordance with the latest Codes (i.e. those promulgated on 9 February 2007) and whose names appear on the present ABVA (Association of BEE Verification Agencies)-"List of Full Members" as displayed on the ABVA website (www.abva.co.za). Although no agencies have, as yet, been accredited by SANAS (SA National Accreditation System), Transnet will, in the interim, accept rating certificates of tenderers who have been verified by any of the listed agencies. Enterprises will be rated by such agency based on the Following: 1. Large Enterprises (i.e. annual turnover > R 35 million: "Rating level base on all seven elements of the BBBEE scorecard. 2. Qualifying Small Enterprises-(QSE)(i.e. annual turnover > R5M but < R35m "Rating based on any four elements of the BBBEE scorecard. NB:

3. Emerging Micro Enterprises-(EME) (i.e. annual turnover < R5m) are exempted from being rated/verified: "Automatic rating of Level 4 BBBEE Irrespective of race of ownership, i.e. 100% BBBEE recognition

"Black ownership > 50% or Black Women ownership > 30% automatically qualifies as level 3 BBBEE, i.e. 110% BBBEE recognition.

"EME's should provide certified documentary proof of annual turnover (i.e. audited financials) plus proof of Black ownership if Black ownership > 50% or Black Women ownership > 30% from the EME's Auditor/Accounting Officer.

4. In addition to the above, Tenderers who wish to enter into a Joint Venture or subcontract portions of the contract to BBBEE companies, must state in their tenders the percentage of the total contract value

DATE:

SIGNATURE OF TENDERER(S):

.....

RFQ / TENDER

Tender No: JHB/11346 Page
Date : 31.07.2013 3

BOARD LIST TRANSNET FREIGHT RAIL PROCUREMENT DEPARTMENT

that will be allocated to such BBBEE companies should they be successful in being awarded any business. A rating certificate in respect of such BBBEE JV-partners and /or sub-contractor/s, as well as a breakdown of the distribution of the aforementioned percentage must also be furnished

In view of the high emphasis which Transnet places on Broad-based Black Economic Empowerment, Transnet will allow certain preference points for BBBEE in the evaluation of all responses. Depending upon the value of the ensuing business award (i.e. below or in excess of R2m), the 80/20 or 90/10 point preference systems will be utilized where BBBEE will count out of 20 or 10 respectively in the evaluation process.

EACH RESPONDENT IS REQUIRED TO FURNISH PROOF OF THE ABOVE TO TRANSNET FAILURE TO DO SO WILL RESULT IN A SCORE OF ZERO BEING ALLOCATED FOR BBBEE Turnover: Kindly indicate your company's annual turnover for the past year R _____

"If annual turnover < R5m, please attach certified confirmation from your Auditor/Accounting Officer

"If annual turnover > R5m please attach original or certified copy of accreditation certificate and detailed scorecard by an ABVA accreditation agency (registered as a "Full Member")

PAYMENT TERMS

The following payment terms will apply as from 1 October 2008.

"All suppliers will be paid 30 days from receipt of month and statement. i.e. payment term F055

CONDITIONS:

This quotation is subject to the provisions of the Standard Terms and Conditions of Contract, Form D07, (Latest) and the General Tender Conditions, Form CSS5 (Latest) and any other standard or special conditions mentioned and/or embodied in the quotation request.

SCHEDULE OF REQUIREMENTS

TENDERERS SHOULD INSERT THEIR PRICE/S UNDER THE APPROPRIATE HEADING HEREUNDER;

IN THIS REGARD THE TENDERER'S ATTENTION IS DIRECTED TO PARAGRAPH 16 OF FORM CSS5 (LATEST).

NB. TENDERERS OFFERING GOODS FROM IMPORTED SUPPLIES MUST SUBMIT THEIR PRICES ON THE DELIVERY BASIS APPEARING UNDER COLUMN (C) OF THIS SCHEDULE OF REQUIREMENTS.

TRANSNET INSISTS ON HONESTY AND INTEGRITY BEYOND REPROACH AT ALL TIMES AND WILL NOT TOLERATE ANY FORM OF IMPROPER INFLUENCING, BRIBERY, CORRUPTION, FRAUD, OR ANY OTHER UNETHICAL CONDUCT ON THE PART OF BIDDERS

DATE:

SIGNATURE OF TENDERER(S):

RFQ / TENDER

Tender No: JHB/11346 Page
Date : 31.07.2013 4

BOARD LIST TRANSNET FREIGHT RAIL PROCUREMENT DEPARTMENT

/TRANSNET EMPLOYEES. IF, IN THE OPION OF TRANSNET,S CHIEF OPERATING OFFICER, A TENDERER/CONTRACTOR/SUPPLIER HAS OR CAUSED TO BE PROMISED, OFFER OR GIVEN TO ANY TRANSNET EMPLOYEE, ANY BRIBE, COMMISSION, GIFT LOAN ADVANTAGE OR OTHER CONSIDERATION,TRANSNET SHALL BE ENTITLED TO REVOKE THE TENDER/CONTRACT BY FOLLOWING ITS INTERNAL POLICIES THAT GOVERN THE ECLUSION PROCESS.IN SUCH AN EVENT TRANSNET WILL BE ENTITLED TO PLACE ANY TENDERER/CONTRACTOR/SUPPLIER WHO HAS CONTRAVENED THE PROVISIONS OF TRANSNET'S BUSINESS ETHICS ON ITS LIST OF EXCLUDED TENDERERS.THIS LIST WILL ALSO BE DISTRIBUTED TO ALL OTHER STATE OWNED ENTERPRISES AND GOVERNMENT DEPARTMENTS.

TRANSNET INVITES ITS VALUED SUPPLIERS TO REPORT ANY ALLEGATIONS OF FRAUD, CORRUPTION OR OTHER UNETHICAL ACTIVITIES TO TRANSNET TIP-OFFS ANONYMOUS, AT ANY OF THE FOLLOWING ADDRESSES/ CONTACT NUMBERS:

TOLL-FREE ANONYMOUS HOTLINE-0800 003 056
EMAIL-transnet@tip-offs.com
FAX NUMBER-0800 007 788
FREEPOST DBN 298, UMHLANGA ROCKS, 4320

ADDITIONAL INFORMATION REQUIRED:(WHERE APPLICABLE)
3.1 THE FOLLOWING ADDITIONAL INFORMATION IS REQUIRED:

- (A) DISCOUNT:-----
- (B) SETTLEMENT DISCOUNT:-----
- (C) PRICE/S FIRM:-----
- (D) PRICE/S FIRM UNTIL:-----THERE AFTER SUBJECT TO REVIEW.
- (E) PRICE/S NOT FIRM:-----
- (F) SABS MARK:-----
- (G) SABS PERMIT NO:-----
- (H) BRAND/MAKE/TYPER:-----
- (I) FULL NAME AND ADDRESS OF MANUFACTURER:-----

(J) FULL NAME AND ADDRESS OF INSPECTION POINT:

(K) COUNTRY OF ORIGIN:-----

(L) YEAR 2000 CONTRACT COMPLIANCE:

Vendor/proposers shall indicate their year 2000 compliance with:

- A. Technology Products.
- B. Equipment, products, components or parts
- C. Products and Services

Non- compliance with either (A) or (B) shall result in your bid/ proposal being deemed non-responsive. Non-Compliance with (C) may cause you bid/proposal to be deemed non-responsive. If you indicate that

DATE:

SIGNATURE OF TENDERER(S):

RFQ / TENDER

Tender No: JHB/11346 Page
Date : 31.07.2013 5

BOARD LIST TRANSNET FREIGHT RAIL PROCUREMENT DEPARTMENT

none of the following apply, please provide a written justification for your determination. Transnet will review this justification and will make a final determination.

Year 2000 Compliance means that (A) the information Technology, (B) Equipment/Products/Components/Parts (Collectively Products) supplied.

(C) Products and Services contracted, will accurately process date and time data from into and between the 20th and 21th centuries. The year 1999 and 2000 and for all leap year. Process date and time includes, but is not limited to, data calculation, logistical functions, program branching, format conversion, edits and validations and the use of dates in comparasons, sorting sequencing, merging, retrieving, searching and indexing. Furthermore year 2000 compliance when (A) used in combination with other information technology, (B) used in combination with other products, (C) used in combination with their(Vendor) other date required interfaces, shall accurately process date and time data (A) if the other technology, (B) If the other products, (C) either passed to or received from their other customers/suppliers, properly exchange date and time data with it/ them.

Comply: _____ Does not Comply: _____ No. Comply: _____

Justification:-----

(M) SURPLUS MATERIAL:

TENDERERS MUST INDICATE IF THEY WILL BE PREPARED TO PURCHASE BACK FROM TRANSNET ANY SURPLUS MATERIAL WHICH MAY BECOME AVAILABLE FROM ANY RESULTING PURCHASE ORDER/CONTRACT ORIGINATED FROM THE QUOTATION SUBMITTED:

(N) PAYMENT OVERSEAS:

ONLY IF TRANSNET LIMITED IS REQUESTED BY THE TENDERER TO EFFECT PAYMENT OVERSEAS DIRECT TO THE TENDERER'S PRINCIPAL/SUPPLIER THE FOLLOWING INFORMATION IS REQUIRED:

* EXCHANGE RATE ON WHICH THE QUOTATION PRICE IS BASED:R 1.00 SA CURRENCY BEING EQUAL TO------(FOREING CURRENCY).

* PERCENTAGE IN RELATION TO THE QUOTATION PRICE TO BE REMITTED OVERSEAS:

* NAME OF COUNTRY TO WHICH PAYMENT IS TO BE MADE:

* APPLICABLE DATE OF EXCHANGE RATE:

* BENEFICIARY'S NAME AND FULL ADDRESS:

DATE:

SIGNATURE OF TENDERER(S):

RFQ / TENDER

Tender No: JHB/11346 Page
Date : 31.07.2013 6

BOARD LIST
TRANSNET FREIGHT RAIL
PROCUREMENT DEPARTMENT

.....
* BENEFICIARY'S BANKERS AND FULL ADDRESS:
.....
.....

.....
* APPLICABLE ACCOUNT NUMBER:
.....

(O) DELIVERY DATE:

TENDERERS MUST FURNISH THEIR ACTUAL DELIVERY AND MANUFACTURING PERIOD
HEREUNDER NOTWITHSTANDING THE DELIVERY DATES SPECIFIED BY TRANSNET.

THE FOLLOWING MUST ALSO BE FURNISHED IN REGARD TO THE ABOVE:

1. PERIOD REQUIRED TO OBTAIN RAW MATERIAL.----(DAYS)
2. MANUFACTURING PERIOD.------(DAYS)
3. PERIOD TO TRANSPORT MATERIAL TO DESTINATION.-(DAY)

MATERIAL NO.	1.(PERIOD)	2. (PERIOD)	3. (PERIOD)
--------------	------------	-------------	-------------

.....
.....
.....
.....

EVALUATION CRITERIA AND WEIGHT RATING BASE ON FOLLOWING ELEMENTS:

1. COMPLIANCE TO SPECIFICATIONS
2. COMPETATIVE PRICE
3. B-BBEE (80%/20%)

Item	Qty	Material	Description
------	-----	----------	-------------

00010	50		Digital communication interface cards
-------	----	--	---------------------------------------

R.....
Each

Delivery Date: 01.10.2013

FULL DETAILS OF DESCRIPTION

DATE:

SIGNATURE OF TENDERER(S):

.....



1. Scope

This specification includes the manufacture, assembly, quality and assurance testing to standards approved and required by Transnet Freight Rail (TFR), rectification of discrepancies before packing and delivery of complete functional DIGITAL COMMUNICATION INTERFACE.

2. General

- 2.1. The specifications, material lists, manufacturing instructions and drawings as listed in the "Schedule of specifications, material lists, manufacturing instructions and drawings" shall be regarded as being embodied herein.
- 2.2. Tenderers must fully acquaint themselves with all the requirements of TFR before submitting any tender.
- 2.3. TFR must be consulted on all matters on which this specification is silent, or on which doubt exists.
- 2.4. Approval of all material, manufacture and assembly processes by TFR is a prerequisite of this specification. Such approval must be confirmed in writing. Similarly any exception to any specification that is agreed to between all parties must be noted in writing.
- 2.5. All boards are to be labelled with a serial no.
- 2.6. For each board a bare board netlist test shall be done.

3. Prototypes

- 3.1. **The Manufacturer providing goods in terms of this specification is required to furnish fully completed prototypes in all respects before full production of the equipment is begun. These prototypes shall become the property of TFR and shall be delivered to the address supplied by Telecontrol (TFR) before full production of the equipment is begun. These prototypes (if accepted by TFR) shall be the benchmark for the remainder of the consignment.**
- 3.2. **The Manufacturer shall be held responsible to rectify any defects that might arise if full production is begun before acceptance of the prototypes by TFR. All cost incurred as a result hereof shall be for the contractor's account.**
- 3.3. TFR requires at least 2 days to test prototypes for compliance and 3 working days notice must be given beforehand. Manufacturers must take this into account when determining



**PROJECT SPECIFICATION FOR THE MANUFACTURE AND SUPPLY OF DIGITAL COMMUNICATION
BOARDS**

MAY 2013

their production schedule to meet the required delivery date.

3.4. Manufacturers not complying with clauses 3.1, 3.2 and 3.3 will be automatically disqualified.

4. Quality of components

4.1. All components shall be new high-grade components. Any deviation of specified components in the applicable specifications, manufacturing instructions, material lists and drawings as listed in the "Schedule of specifications, material lists, manufacturing instructions and drawings" shall be agreed to between all parties in writing before manufacturing.

5. Types and quantities required

A "Schedule of Requirements" will be issued with this specification that shall list quantities required, along with other relevant information.

6. Copyright

6.1. The information, design and drawings contained in this specification are copyright and may not be reproduced, communicated to a third party or used in any other way than for that purpose for which it was issued, without the written consent of TFR.

6.2. All rights are reserved in the event of the grant of any patents or registration of any trademarks.

7. Assembly of Printed Circuit Boards.

7.1. Artwork of the printed circuit boards will be provided in Gerber format on standard PC compatible CD ROM.

7.2. All printed circuit boards shall be through-hole plated and shall pass SABS, IEC-326, MIL-P-55110D and IPC-600 standards.

7.3. All boards shall be assembled to a professional quality standard. Tenderers to supply detail of quality standards that they comply with.

7.4. All soldering shall be professionally done.

7.5. All boards shall be properly cleaned after manufacturing and according to the requirements of the component manufacturers. Special care shall be exercised to prevent contamination of fiber interfaces, relays and switches where applicable.



**PROJECT SPECIFICATION FOR THE MANUFACTURE AND SUPPLY OF DIGITAL COMMUNICATION
BOARDS**

MAY 2013

7.6. All material lists must be checked against available sample boards before manufacturing of prototypes. TFR shall be notified in writing of any deviations.

8. Testing

8.1. All Digital Communication Interface boards are to be tested by the manufacturer according to the test schedule BBB2682.

8.2. A TFR representative shall inspect the boards before delivery (3 working days notice is required).

8.2.1. A set of two completed boards of each type shall randomly be selected by the TFR representative, visually inspected for quality and the Digital Coms Interface boards (BBB2682) will also be tested as per schedule BBB2682.

8.2.2. If any one board would fail another two boards will be selected, inspected and tested.

8.2.3. If there is another failure the entire lot will be rejected. Otherwise the lot will be accepted, but all boards are still to be covered by the guarantee should any board fail within the guarantee period.

8.2.4. If the boards are rejected as per above clause any subsequent inspections shall be paid for by the manufacturer at a rate of R250.00 per hour.

8.2.5. All rejected boards are to be rectified at the manufacturer's expense.

8.3. For the motherboards TFR will do the testing of each unit after manufacture and delivery. This however does not relieve the contractor of his duty to deliver a high quality product. All faulty units will be returned to the Manufacturer for repair on his account.

9. Guarantee

9.1. All equipment delivered under this contract shall be guaranteed for a period of 12 months from date of acceptance by TFR.

10. Quality assurance

10.1. The Manufacturer shall be responsible for the quality control of the items manufactured in terms of this specification so as to ensure an end product having a high standard of finish as well as reliable functioning of each assembly. Preference will be given to companies that have ISO 9001 certification.

10.2. The Manufacturer shall indicate, by means of a marking, that the item has passed his quality control inspection(s).

11. Delivery Period

11.1. All units shall be delivered within 8 weeks from date of order.



12. Penalties

12.1. Unless a delay was caused by TFR or an extension was granted by TFR, TFR will impose a penalty of **two hundred and fifty rand** per day on the Manufacturer for late delivery.

13. Contact person

13.1. For any queries please contact Vukani Mchunu
 Tel : 011 544 9796/5
 Email : vukani.mchunu@transnet.net

14. Delivery address

14.1. All material to be delivered to Vukani Mchunu at 21 Wellington road, Inyanda House 1, Parktown.

15. Schedule of specifications, material lists, manufacturing instructions and drawings

15.1. Note that the empty board Spocnet-CDRL:BBB2682 is a 100mm x 219.4mm 6 layer board (4 routing and 2 plane layers) with solder mask both sides and silkscreen top side and no components on solder side of the board. All other boards are double sided through-hole plated, with solder mask, silkscreen and components on both sides of the board. A Gerber file for the solder paste mask is available for all boards.

"PREVIEW COPY ONLY"

Item	Description	Circulation Restrictions	Document No
1.	MASTER RECORD INDEX – MRI	Relevant Third Parties	BBB2682
2.	MATERIAL LIST	Relevant Third Parties	BBB2684
3.	XYLINX JED FILE	Relevant Third Parties	BBB4077
4.	ATMEL CONTROLER Bin File	Relevant Third Parties	BBB4079
5.	CIRCUIT DIAGRAM	Relevant Third Parties	BBB2683
6.	ATMEL CONTROLER FIRMWARE (Source)	Engineering	BBB2685
7.	XYLINX PLD FIRMWARWE (Source)	Engineering	BBB4069
8.	BOARD SOURCE FILES (Orcad 7 MAX)	Engineering	BBB4081



PROJECT SPECIFICATION FOR THE MANUFACTURE AND SUPPLY OF DIGITAL COMMUNICATION BOARDS

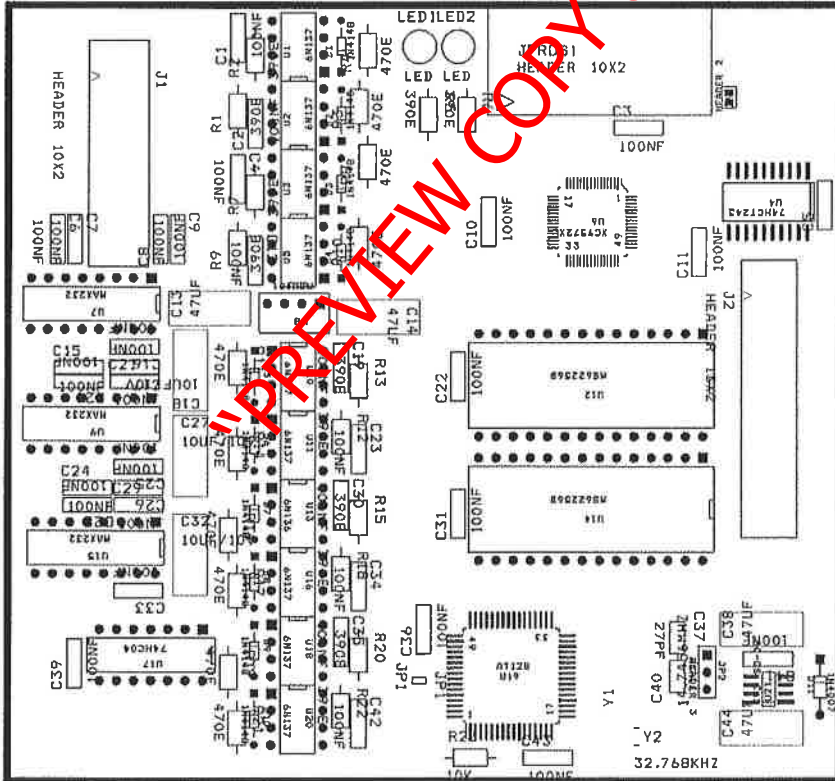
MAY 2013

13. Schedule of requirements and unit prices

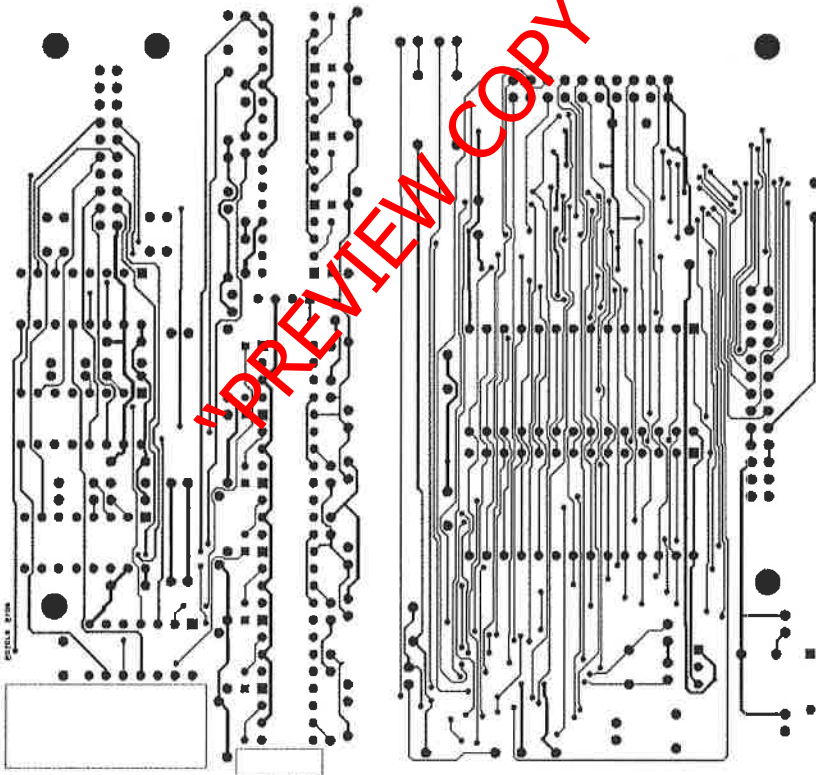
Item	Product Number	Description	Designated for	Quantity	Unit Price
1	BBB2682	Digital Communication Interface Boards	Coal line	60	
		Total		60	

oOo

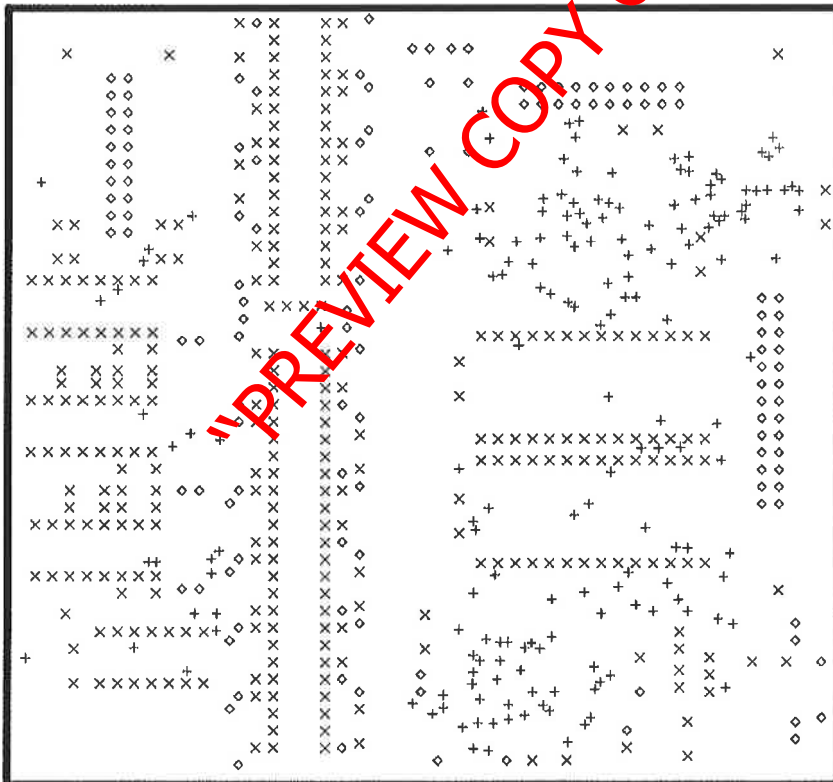
"PREVIEW COPY ONLY"



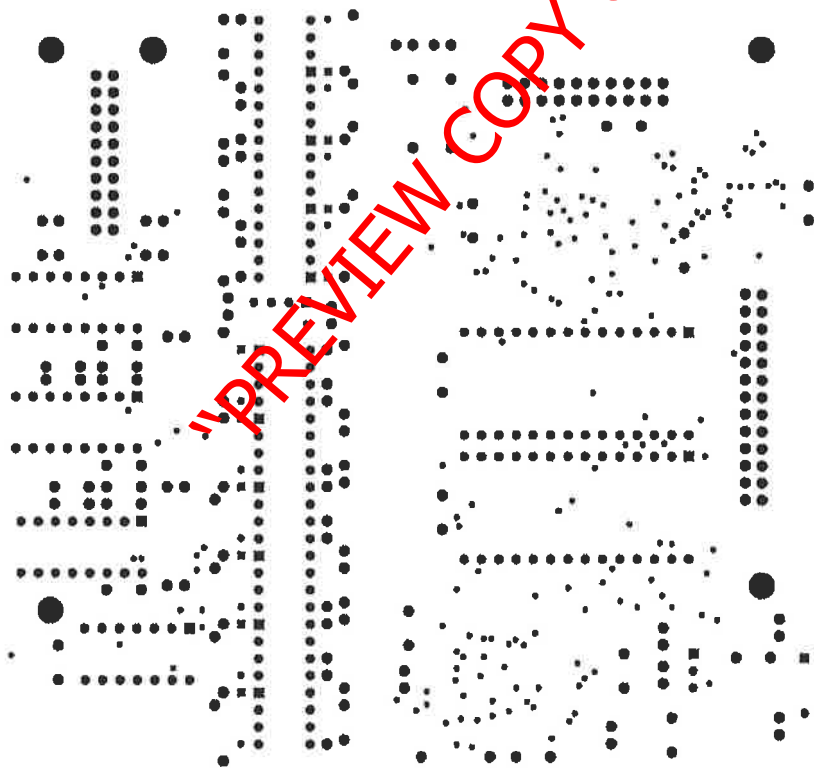
PREVIEW COPY ONLY

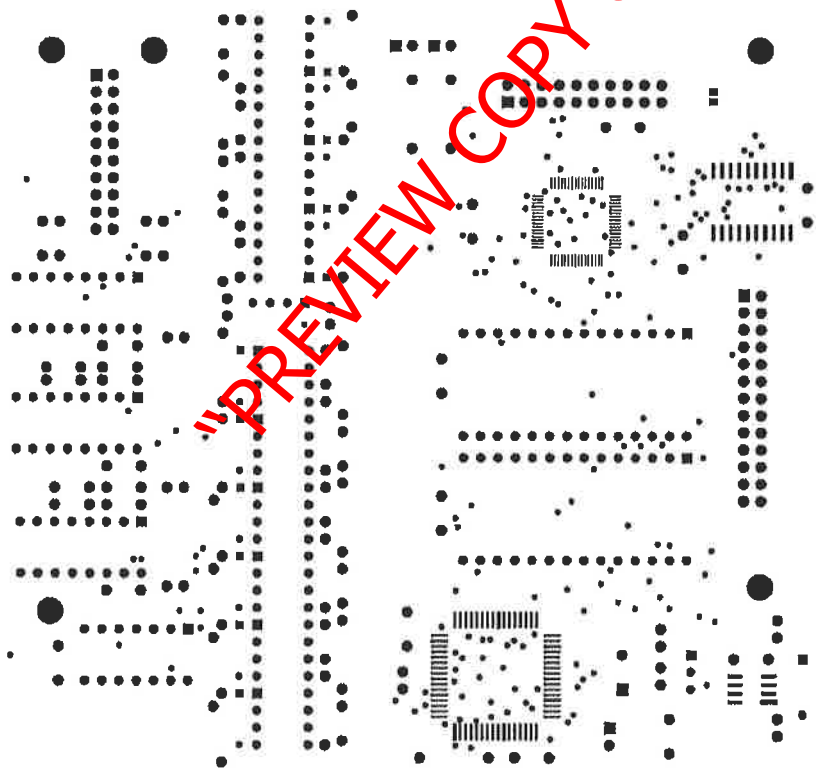


"PREVIEW COPY ONLY"

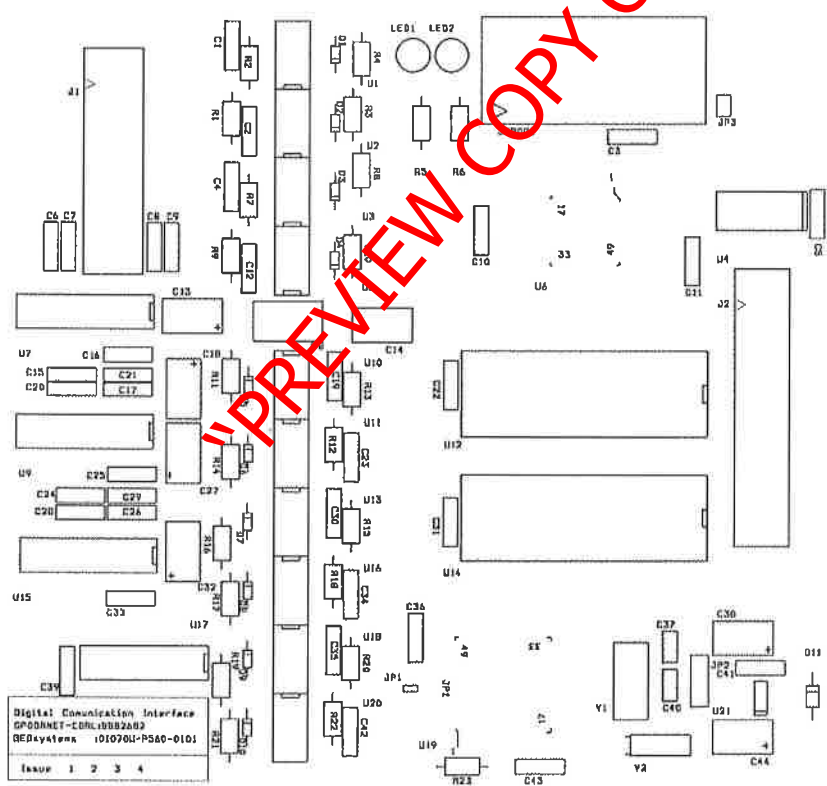


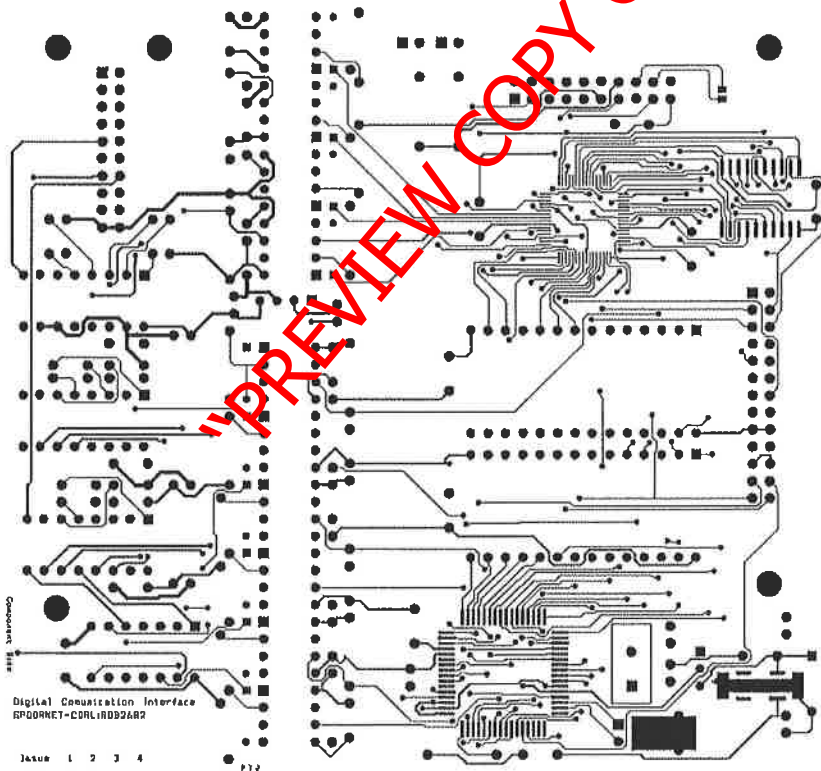
HOLE LEGEND				
SYM	DIAM	TOL	QTY	NOTE
+	0.020		176	
x	0.032		303	
o	0.038		136	
x	0.138		5	
TOTAL			620	





!PREVIEW COPY ONLY!





Component Pins

Digital Communication Interface
RPODRNET-CDRLIND92AR2

Jctur 1 2 3 4

112



TELECONTROL: SIS500 OUTSTATION
Digital Communications Interface

Document No:
BBB2682 Version 2
Product Code : 01070U-P760-0102

Item	Description	Circulation Restrictions	Document No
1.	MASTER RECORD INDEX - MRI	Relevant Third Parties	BBB2682
2.	MATERIAL LIST	Relevant Third Parties	BBB2684
3.	XYLINX JED FILE	Relevant Third Parties	BBB4077
4.	ATMEL CONTROLLER Bin File	Relevant Third Parties	BBB4079
5.	CIRCUIT DIAGRAM	Relevant Third Parties	BBB2683
6.	GERBER FILES (Zipped)	Relevant Third Parties	BBB2681
7.	ATMEL CONTROLLER FIRMWARE (Source)	Engineering	BBB2685
8.	XYLINX PLD FIRMWARWE (Source)	Engineering	BBB4069
9.	BOARD SOURCE FILES (Orcad 7 MAX)	Engineering	BBB4081

"PREVIEW COPY ONLY"

Circulation restricted to: Relevant Third Parties

© This document as a whole is protected by copyright. The information herein is the sole property of Transnet Ltd. It may not be used, disclosed or reproduced in part or in whole in any manner whatsoever, except with the written permission of and in a manner permitted by the proprietors.

Author:

Approved:

Authorised:

Date:

"PREVIEW COPY ONLY"

Circulation restricted to: Relevant Third Parties

© This document as a whole is protected by copyright. The information herein is the sole property of Transnet Ltd. It may not be used, disclosed or reproduced in part or in whole in any manner whatsoever, except with the written permission of and in a manner permitted by the proprietors.