



भारतीय प्रौद्योगिकी संस्थान मद्रास, चेन्नै / 600 036
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प्रो. वी. जगदीश कुमार
Prof. V. Jagadeesh Kumar
Dean Academic Courses

दिनांक/Dated: 05/07/2019

INVITING QUOTATIONS for PA SYSTEM

Ref.No. IITM 19-20 001 ACADEMIC PA SYSTEM CON

DUE DATE : 15.07.2019

1. Quotations are invited in duplicate for the **PA SYSTEM** in Two Bid System (specification attached).
2. The Quotations are to be in **Two bid system** as: Technical bid and Commercial bid. Two parts of the offer are to be clearly marked on the envelopes. The two parts of the offer in a separate envelop must enclosed in the one bigger envelop duly sealed and superscribed with reference number and due date and, should be addressed to the undersigned so as to reach him on or before the due date stipulated above. A blank price quote (identical to the Commercial bid with numbers removed) should be enclosed with the Technical Part.
3. The Quotations should be valid for Ninety days (30 days) from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS&D Rate contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
6. Local Firms: Quotations should be for free delivery to this Institute. If Quotations for Ex-Godown delivery charges should be indicated separately.
7. Firms Outside Madras : Quotations should be for CIF/F.O.R. Madras. If CIF/F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If Ex-Godown, packing, forwarding and freight charges must be indicated.
8. The rate of sales / General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales / General Taxes will be admitted at any stage and on any ground whatsoever The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to non Government Educational Institutions run with no profit motive for which a concession. Sales Tax Certificate will be issued at the time of final settlement of the bill.
9. In case of import, the insurance & Freight charges should not exceed 6% of FOB value. You are requested to quote FOB price as well as CIF, CHENNAI mentioning Freight & Insurance charges separately. No Ex-works pricing is considered.
10. **No Advance Payment will be made for Indigenous purchase.** 100% Payment against Delivery on satisfactory installation for local purchase can be agreed to. For Imports normally payment will be made by Letter of Credit only (**Terms 90 % Payment will be released against dispatch of shipping documents and 10 % will be released after satisfactory installation**). Sometimes The Rule 159 GFR may be allowed (i.e.) 30 % Advance Payment against B.G. (Bank Guarantee) and 70 % Payment after supply (All the B.G. Charges will be borne by the supplier only). **Demurrage charges (if any) will be borne by the supplier & it will be deducted from the balance 10%**. Initial opening of Letter of Credit charges will be borne by us. If any amendment is requested for, the charges for the amendment will be borne by the supplier only. Hence, care should be taken in all respects before opening of Letter of Credit.
11. Goods should be supplied carriage paid and insured.
12. Goods shall not be supplied without an official supply order.
13. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

Yours faithfully,

(Handwritten signature)

आई आई टी. मद्रास, चेन्नै - 600 036
IIT Madras, Chennai - 600 036

(Handwritten signature)

Prof. V. Jagadeesh Kumar
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Item Description: **Active line array module Speakers**

Quantity: 12 Numbers

Item Specifications:

Acoustic

FREQUENCY RESPONSE: 55 Hz - 20000 Hz
MAX SPL @ 1M: 135 dB
HORIZONTAL COVERAGE ANGLE: 100°
VERTICAL COVERAGE ANGLE: 15°

Transducers

COMPRESSION DRIVER: 2.0", 3.0" v.c
WOOFER: 2 x 10", 2.5" v.c

Input/Output section

INPUT SIGNAL: bal/unbal
INPUT CONNECTORS: XLR
OUTPUT CONNECTORS: XLR
INPUT SENSITIVITY: -2 dBu/+4 dBu

Processor section

CROSSOVER FREQUENCIES: 800 Hz
PROTECTIONS: Thermal, RMS
LIMITER: Soft Limiter
CONTROLS: Cluster, HF, High curving, Indoor

Power section

TOTAL POWER: 1400 W Peak, 700 W RMS
HIGH FREQUENCIES: 400 W Peak, 200 W RMS
LOW FREQUENCIES: 1000 W Peak, 500 W RMS
COOLING: Convection

Standard compliance

CE MARKING: Should comply
MAKE: BOSE / JBL / RCF / QSC

Item Description: Active Subwoofer

Quantity: 4 Numbers

Item Specifications:

Acoustic

FREQUENCY RESPONSE: 30 Hz - 120 Hz

Transducers

WOOFER: 18", 4.0" v.c

Input/Output section

INPUT SIGNAL: bal/unbal

INPUT/ OUTPUT CONNECTORS: XLR

INPUT SENSITIVITY: -2 dBu/+4 dBu

Processor section

HI-PASS FREQUENCIES: 120 Hz

LOW-PASS FREQUENCIES: 90 Hz

PROTECTIONS: Thermal, RMS

LIMITER: Fast Limiter

CONTROLS: Xover, Phase switch, Deep/Punch, Outuput Delay Settings, Cardioid

Power section

TOTAL POWER: 2500 W Peak, 1250 W RMS

LOW FREQUENCIES: 2500 W Peak, 1250 W RMS

COOLING: Convection

Standard compliance

CE MARKING: Should comply

MAKE: BOSE / JBL / RCF / QSC

u. J. J. J.

Item Description: 4in 8out Speaker Management system

Quantity: 1 Numbers

Item Specifications:

Audio performance

COMMON MODE REJECTION RATIO (50 HZ TO 10 KHZ): >60 dB
CROSSTALK: ≤100 dB
DISTORTION (THD+N) @ 1 KHZ NOMINAL POWER: <0.001 %
DYNAMIC RANGE: >115 dB
FREQUENCY RESPONSE (-3DB): 20 Hz - 20 kHz

Digital audio performance

A/D - D/A CONVERTERS (BIT): 24
PROPAGATION DELAY: 3 ms
RESOLUTION (DB): 40
SAMPLING RATE (KHZ): 96kHz

Input section

TOTAL NUMBER OF INPUTS: 4
BALANCED: 4
MONO: 4
LINE INPUTS: 4
LINE CONNECTORS: XLR

Output section

SIGNAL OUTPUT NUMBER: 8
SIGNAL OUTPUT CONNECTORS: XLR

Processing

DSP: Should be DSP based design
EQ FILTERS: Should be provided
DELAY: Should be provided
TONE CONTROLS: Should be provided
HIGH-PASS FILTER: 20 - 20000 Hz
CROSSOVER: 20 - 20000 Hz

Controls

CONFIGURATION: Front panel, PC Software
NUMBER OF PROGRAMS/PRESETS: 30
PROTOCOLS FOR SYSTEM INTEGRATION: ASCII

Protections

COOLING: Convection

OPERATING VOLTAGE:

220-240 V~ 50Hz

Standard compliance

CE MARKING:

Should comply

MAKE:

RCF / HARMAN / DB MARK / QSC / BEHRINGER

Installation : Active line array module speakers, Active subwoofer and Speaker management system should be installed in the SAC building. Installation charges, if any should be quoted Separately.

Delivery time: With in 7 days

