THE POSTOR AND A DAY IN CALL & S. LA.	UNDER DPAS (15 CFR 3			00-81	PACE OF PACES
2 CONTRACT (Proc. Incl. Mont) NO H94003-08-C-0808	3 EPESCTIVE DADECT	2 4 2008	REQUIST 101	WPURCHASE REQUEST /P	ROJECT (NC)
5 ISSUED BY COD OFFENSIENICROBUSTNONICS ACTIVITY CONTRACTING DIASON 425454Th STREET MCCLRJAN CA 19882-2100	- (Hp+0C3	6. ADMINISTERED BY DCMA LOS ANGELES P D BOX NOS MISSION HELLS GA 91345-9958		40) (U	E SCOL
7 NAME AND ADORESS OF CONTRAC	TOR Me and the sector	and up critici		IVERY	
teledyne Bolentfic & Maang, Llo 1040 Campo Dog Rice Thousand Dave Ca Interact			9 DISC	UNTFOR PROMPT PAYMEN	THER the holes
			Net 30		ITEM
CODE 20609	FACILITY CODE		(1 5000	ADDRESS	Block B
	HINOTE	12. PAYMENT WILL		and the second se	HOOIDP
NES TRUNNEL Digardeac dan sarh Street McClGLAN ¢A III Steet 100		COLUMBUS ON 42711-2011	NT CIPE		
I. AUTHORITY FOR USING OTHER T	HAN FULL AND OPEN	14. ACCOUNTING AN	D APPROPRI	ATION DATA	
COMPETITION:	I U.S.C. 253(c)( )	Saa Schedule			
ISA. ITEM NO ISB SU	PPLIES SERVICES	ISC QUANTITY	SD UNIT	ISE, UNIT PRICE	ISF AMOUNT
1					•
		150.70	DTAL AMOLI	TOFCONTRACT	\$701.980.00
		OF CONTENTS	DTAL AMOLIN		\$7(01,980),00
X) ISEC   DESCRIPTIC PART 1 - THE SCI	DN PAGE(8			DESCRIPTION CONTRACT CLAUSES	\$701,980,00 [PAGE(S)
PARTI-THESCI	DN PAGE(8 JEDULS FORM 1	DF CONTENTS	PARTU-	OFSCRIPTION CONTRACT CLAUSES	PAGE(S)
PART 1 - THE SCI X A SQLICITATION/CONTRACT X B SUPPLIESOR SERVICES AND C DESCRIPTION/SPECE/WOR	PAGE(S PORM 1 PRICES COSTS 2	CONTENTS	PARTU- T CLAUSES F DOC UMPN T LACHMENT	OPSCRIPTION CONTRACT CLAUSES TS. EXHIBITS AND OTHI S	PAGE(S) 6 - 16 98 ATTACHMENTS 117 - 22
PART 1 - THE SCI X A SOLICITATION/CONTRACT X B SUPPLIESOR SERVICES AND C DESCRIPTION/SPECE/WOR D PACKAGING AND MARKING	DN      PAGE(S        12DULS      FORM      1        PRICES COSTS      2      2        STATEMENT	CONTENTS	PARTU- T CLAUSES F DOC UMEN T LACHMENT V - BDROSE	DESCRIPTION CONTRACT CLAUSES TS. EXHIBITS AND OTHI S TATIONS AND INSTRU	PAGE(S) 6 - 16 98 ATTACHMENTS 117 - 22
PART 1- THE SC X A SOLICITATION/CONTRACT X B SUPPLIES OR SERVICES AND C DESCRIPTION/SPECE/WOR D PACKAGING AND MARKING X R INSPECTION AND ACCEPTA X F DELIVERIES OR PERFORMAN	PAGE(S)        PORM      1        PORM      1        PRICES COSTS      2        K STATEMENT      1        NCE      3        NCE      4	CONTENTS (X) SEC ARTIN-LISTO ARTIN-LISTO X / LISTOFAT PARTI K REPRESEN K OTHER ST	PARTU- T CLAUSES F DOC UMEN TTACHMENT V - BD RUSE TATIONS, CE ATEMENTS (	DESCRIPTION CONTRACT CLAUSES TS, EXHIBITS AND OTHI S TATEONS AND INSTRU- RTIFICATIONS AND OF OFFERORS	PAGE(S) 6 - 16 98 ATTACHMENTS 117 - 22
PARTI-THESC X A SQUICITATION/CONTRACT X B SUPPLIESOR SERVICES AND C DESCRIPTION/SPECE/WORL D PACKAGING AND MARKING X E INSPECTION AND ACCEPTA	PACE/S    PORM  1    PORM  1    PRICES/COSTS  2    CSTATEMENT  1    NCE  3    NCE  4    ON DATA  5	CONTENTS CONTENTS CONTENTS CONTENTS CONTENTS CONTENTS COTHERST L INSTRS. O	PARTIL- T CLAUSES F DOCUMENT I ACHMENT V - BD RESE TATIONS, CE ATEMENTSC ONDS, AND N	DESCRIPTION CONTRACT CLAUSES TS. EXHIBITS AND OTHI S S VIATIONS AND INSTRU- RTIFICATIONS AND	PAGE(S) 6 - 16 98 ATTACHMENTS 117 - 22
PARTI-THESC X A SOLICITATION/CONTRACT X B SUPPLIESOR SERVICES AND C DESCRIPTION/SPECE/WOR D PACKAGING AND MARKING X E INSPECTION AND ACCEPTA X F DELIVERIES OR PERFORMAN X G CONTRACT ADMINISTRATI H SPECIAL CONTRACT REQUI	PAGES        12004.6        PORM      1        PRICES COSTS      2        STATEMENT      2        NCE      2        NCE      4        ON DATA      5        REMENTS      2        ONTRACT INGOFFICER WITS      2	CONTENTS (X) SEC PARTIN-LISTO X / LISTOFA PARTIN K REPRISEN K OTHERST L, INSTRS. O M BVALUATI L, COMPLETS ITEM	PARTU- T CLAUSES F BOCUMEN ITACHMENT V - BD RUSE TATIONS, CE ATEMENT 5C (NDS, AND ION FACTOR 17 OR 13 AS A	OPSCRIPTION CONTRACT CLAUSES IS. EXHIBITS AND OTHIT S ITATIONS AND INSTRUM RTIFICATIONS AND PSCRIPT OFFERORS FOR AWARD PPLICABLE	PAGE(S) 6 - 16 8 ATTACHMENTS 17 - 22 TIONS
PART 1- THE SCI X A SQLICIT AT ION/ CONTRACT X B SUPLIES OR SERVICES AND C DESCRIPTION/ SPECE/ WOR D PACKAGING AND MARKING X E INSPECTION AND ACCEPTA X F DELIVERIES OR PERFORMAN X G CONTRACT ADMINISTRATS H SPECIAL CONTRACT REQUI H SPECIAL CONTRACT REQUINE Y IX (CONTRACTOR'S HEGOTATED A GREEMENT for managements). Assession of the SPECIAL CONTRACT ON SHE SOME THE SPECIAL CONTRACTOR'S HEGOTATED A GREEMENT for the SPECIAL CONTRACT REQUINE Assession for Special Bases of the SPECIAL CONTRACTOR'S HEGOTATED A GREEMENT for the SPECIAL CONTRACT REQUINE (In the SPECIAL CONTRACT REQUINE Assession for Special Bases of the SPECIAL (In the SPECIAL CONTRACT REQUINE (In the SPECIAL CONTRACT REQUINES AND A SPECIAL CONTRACT REQUINES (In the SPECIAL CONTRACT REQUINES AND A SPECIAL CONTRACT REQUINES (In the SPECIAL CONTRACT REQUINES AND A SPECIAL CONTRACT REQUINES AND A SPECIAL CONTRACT REQUINES (In the SPECIAL CONTRACT REQUINES AND A SPECIAL CONTRACT	DN      PACE(S)        12DULAS      1        PORM      1        PRICES' COSTS      2        KSTATEMENT      1        NCE      3        NCE      4        DN DATA      5        REMENTS      00NT RACT INCOTPICER WI        Contract Language of an agrice of an agrice of an agrice of agric	CP_CONTENTS (X) SEC X     CONTRAC PARTIH-LISTO X     LIST OF A PARTI K REPRISEN K OFHERST L, INSTRS, O M EVALUAT II   AWARG CONTRAC II   AWARG CONTRAC III   AWARG CONTRACTOR III   AWARG CONTRACTOR IIII   AWARG CONTRACTOR III   AWARG CONTRACTOR IIII   AWARG CONTRACTOR III   AWARG CONTRACTOR III   AWA	PARTU- T CLAUSES EDOCUMENT TACHMENT V - BDPRISE TATIONS, CE ATEMENTSC CNDS, AND TATIONS, CE ATEMENTSC CNDS, AND TO R. 13 AS A Battestick and the set of based above following decement	DESCRIPTION CONTRACT CLAUSES TS. EXHIBITS AND OTHI S TATIONS AND INSTRUE RETIFICATIONS AND DF OFFERORS IOT ICES TO OFFERORS FOR AWARD PPLICABLE LEADERS of CHARGE ITS AT BETTE HI INSTRUMENT VIEW OFFERORS IN A CHARGE ITS AT BETTE HI INSTRUMENT VIEW OFFERORS	PAGE(S) § - 16 SR ATTACHMENTS 17 - 22 TIONS Saldad beer Nember Saldad beer Nember
PART 1- THE SCI X A SOLICITATION CONTRACT X B SUPPLIESOR SERVICES AND C DESCRIPTION SPECE / WORL D PACKACING AND MARKING X E INSPECTION AND ACCEPTA X F DELIVERIES OR PERFORMAN X G CONTRACT ADMINISTRATS H SPECIAL CONTRACT REQUIN Y 1X CONTRACTOR'S RECOTATED A CREEMENT General of palaward by the Reforment for the constitution and beam of the the Reforment desamating result on any set of the Proving Media and the the constitution of the the Constitution desamation of the service and beam of the the Reforment desamation of the service and there is the service desamation of the service and there is the service of the service desamation of the service and there is the service of the service desamation of the service and there is the service of the servi	DN  PACES(S)    IDULS  FORM  1    PRICES COSTS  2    CSTATEMENT	DF CONTENTS (X) SEC X I CONTRAC PARTIH-LISTO X / LISTOFAT PARTIE K REPRESEN K OTHERST L INSTRS. CONTRACT M EVALUAT INSTRS. COMPLETE ITEM INSTRS. COMP	PART II- T CLAUSES F DOCUMEN ITACHMENT V - BD RESE TTATIONS, CE ATEMENT SC CNDS, AND I ION FACTORS I COMPACTORS I COMPACTORS I COMPACTORS I COMPACTORS I COMPACTING I COMPACTI	OPSCRIPTION CONTRACT CLAUSES IS, CARIENTS AND OTHI S TTATIONS AND INSTRUM RITIFICATIONS AND POOPS OF OFFERORS OT ICES TO OPPERORS FOR AWARD PPLICABLE LEADSHEAR AWARD PPLICABLE LEADSHEAR AWARD PPLICABLE LEADSHEAR AWARD PPLICABLE LEADSHEAR AWARD PPLICABLE LEADSHEAR AWARD PPLICABLE LEADSHEAR AWARD PPLICABLE LEADSHEAR AWARD PPLICABLE IS A AWARD PPLICABLE LEADSHEAR AWARD PPLICABLE IS A AWARD IS A AWARD PPLICABLE IS A AWARD IS A A A A A A A A A A A A A A A A A A A	PAGE(S) 16 - 16 BR ATTACHIMENTS 17 - 22 THONS Suidant per Nember Suidant per Nember sid ward consummingly 5 dynn uffor, bail
PART 1- THE SC X A SOLICITATION CONTRACT X B SUPPLIESOR SERVICES AND C DESCRIPTION SPECE / WOR D PACKAGING AND MARKING X F INSPECTION AND ACCEPTA X F DELIVERIES OR PERFORMAN X G CONTRACT ADMINISTRATI H SPECIAL CONTRACT REQUI H SPECIAL CONTRACT REQUI H SPECIAL CONTRACT REQUI	DN  PACES(S)    IDULS  FORM  1    PRICES COSTS  2    CSTATEMENT	DF CONTENTS (X) SEC X I CONTRAC PARTIIS-LISTO X I LIST OF A PARTII K REPRESEN COTHERST L INSTRS. O M BVALUAT IN TES. O M BVALUAT II AWARG CONTRACTOR ACOMPLET'S ITEM II ( AWARG CONTRACTOR II ( ) THE WORTHOUSEN IN A FW II ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	PART II- T CLAUSES F DOCUMEN ITACHMENT V - BD RESE TTATIONS, CE ATEMENT SC CNDS, AND I ION FACTORS I COMPACTORS I COMPACTORS I COMPACTORS I COMPACTORS I COMPACTING I COMPACTI	OPSCRIPTION CONTRACT CLAUSES IS. EXHIBITS AND OTHI S ITATIONS AND INSTRUM RETIFICATIONS AND PFOPFERORS IOT ICES TO OPPERORS IOT ICES TO OPPERORS INT ICES TO OPPERORS	PAGE(S) § - 16 SR ATTACHMENTS 17 - 22 TIONS Saldad beer Nember Saldad beer Nember

AWAR	D/CONTRACT	1. THIS CONTRA UNDER DPAS(			ORD	ER			ŀ	RATING D0-S1	PAGE 1	OF PAGES
2. CONTRACT H94003-09-C-0	(Proc. Inst. Ident.) NO. 902	3. EFFECTIVE DA		,	3 .		4. REQU	ISIT IO	N/PURCH	ASE REQUEST	PROJECT 1	
5. ISSUED BY DEFENSE MICROEL CONTRACTING DIM 4234 54TH STREET MCCLELLAN CA 966		H94003		DCMA P.O. BC	LOS AN DX 9608		D BY (If othe 9608	er than Uer	m 5)	CO	DE <u>50612A</u>	SCD: C
TELEDYNE SCIENTI		TOR (No., street, city	, county, state a	nd zip ci	ude)				LIVERY ] FOB OF	UGEN [X]	OTHER 6	See below)
1049 CAMINO DOS F THOUSAND OAKS C									COUNTFOR ) Days	PROMPTPAYME	INT	
CODE 2D609		FACILITY CODE						(4 copie	BMIT INVOI es unless others E ADDRESS 'N IN;	vise specified)	ITEM	3lock 6
11. SHIP TO/M	ARK FOR CODE			12. F	AYM	ENT W	ILL BE MA	L		COI	DE HO0339	,
	ECTRONICS ACTIVITY			DFAS CO-JV PO BC	-COLUM V WES X 18238	IBUS CEN ST ENTITLI	ter Ement ops		•			
13. AUTHORIT COMPETIT [ ] 10 U.S.C		IAN FULL AND OF	'EN )		CCOL Sche		FAND APP	ROPRI	IATION D	ATA		
15A. ITEM NO.	15B. SUI	PLIES SERVICES		15C.	QUAI	YTITY	15D. UN	UT	15E	. UNIT PRICE	15F.	AMOUNT
	SEE S	CHEDULE				150			NTOFO	DNTRACT		\$701,960.00
		16.	TABLE (	OF CC	DNTE		<u>, 10/1281.2</u>	10107 ().				\$101,000.00
(X) SEC.	DESCRIPTIC		PAGE(S)	(X)	SEC.					CRIPTION		PAGE(S)
X A SOLI	PARTI - THESCH CITATION/ CONTRACT		1	x	Γī		PA RACT CLA		CONTRA	CTCLAUSES		6 - 16
	LIES OR SERVICES AND		2		ART				NTS, EXHI	BITS AND OT	HER ATTA	
	RIPTION/ SPECS./ WORK	STATEMENT		X	Ţ		FATTACE					17 - 22
	CAGING AND MARKING ECTION AND ACCEPTA	NCE	3							IS AND INSTR TIONS AND	UCTIONS	
	VERIES OR PERFORMAN		4		К		RSTATEM					
	FRACT ADMINISTRATIO		5	ļ		1				TO OFFERORS	l	
H SPEC	IAL CONTRACT REQUI	REMENTS ONT RACT ING OF					JATION FA					
17. [X] CONTRACTO	R'S NEGOTIATED AGREEMENT	Contractor is required to					SIVET / QR   ractor is not requ				on Solicitation N	umber
items or perform all th sheets for the consider contract shall be subject (b) the solicitation, if an	e services set forth or otherwise identi- ation stated herein. The rights and obi- ct to and governed by the following do up, and (c) such provisions, represent rporated by reference herein.	igations of the parties to this souments: (a) this award/co	nvation ntact,	above, the con	is hereb ntract wb	y accepted tick consists	as to the items i	isted abov g documer	re and on any c nts: (a) the Go	changes are set forth : ontinuation sheets. Th vernment's solicitation sary.	is award consum	
19A. NAME AN	D TITLE OF SIGNER (7	ype or print)		DAWN	B, DO	STER / O	ONT RACT		ER	, , <b>.</b>		
19B NAME OF	CONTRACTOR	19C DAT	FSIGNED			231-1521 FD ST 4	ATES OF A	MEDIC		.: doster@dmea.c		TE SIGNED
BY	CONTRACTOR		e oranacia	BV		~	AT ESOF A		_	Jostan	20C. DA	
	re of person authorized to sign)			<sup>11</sup> -		-	(Signature	of Contrac	cting Officer)		-	
NSN 7540-01-152-806	9	1	26	107						51	ANDARD FOR	M 26 (REV. 12/2002



Page 2 of 22

Section B - Supplies or Services and Prices

0001	SUPPLIES/SERVICES	QUANTITY	UNIT LOT	UNIT PRICE	AMOUNT \$701,960.00
	ENGINEERING SERVIC	ES			
	COST PLUS FIXED FEE	(CPFF)			
	JOINT TACTICAL RAD ACCORDANCE WITH T 08-8D5 DATED 04 SEPT	THE ATTACHED			
	FOB: Destination				
	PURCHASE REQUEST	NUMBER: 8MC8	D501		
			ESTIN	IATED COST	(b)(4)
			LOTIN		
				FIXED FEE	 \$701,960.00
			TOTAL EST	COST + FEE	
	ACRN AA CIN: 8MC8D5010001				\$701,960.00
FIXI ITEM NO 0002	ED FEE FOR THIS CONT SUPPLIES/SERVICES	TRACT IS <sup>(b)</sup> & EX QUANTITY	UNIT LOT	COST OF MONEY. UNIT PRICE	
ITEM NO			UNIT		
ITEM NO	SUPPLIES/SERVICES		UNIT		
ITEM NO	SUPPLIES/SERVICES DATA	QUANTITY	UNIT LOT	UNIT PRICE	AMOUNT *NSP
ITEM NO	SUPPLIES/SERVICES DATA CPFF IN ACCORDANCE WIT	QUANTITY	UNIT LOT	UNIT PRICE	
ITEM NO	SUPPLIES/SERVICES DATA CPFF IN ACCORDANCE WIT SEPTEMBER 2008.	QUANTITY H THE ATTACH	UNIT LOT	UNIT PRICE	
ITEM NO	SUPPLIES/SERVICES DATA CPFF IN ACCORDANCE WIT SEPTEMBER 2008. FOB: Destination	QUANTITY H THE ATTACH NUMBER: 8MC8	UNIT LOT	UNIT PRICE	
ITEM NO	SUPPLIES/SERVICES DATA CPFF IN ACCORDANCE WIT SEPTEMBER 2008. FOB: Destination PURCHASE REQUEST	QUANTITY H THE ATTACH NUMBER: 8MC8	UNIT LOT ED DD FOR	UNIT PRICE	
ITEM NO	SUPPLIES/SERVICES DATA CPFF IN ACCORDANCE WIT SEPTEMBER 2008. FOB: Destination PURCHASE REQUEST	QUANTITY H THE ATTACH NUMBER: 8MC8	UNIT LOT ED DD FOR	UNIT PRICE M 1423 DATED 03	*NSP

Page 3 of 22

## Section E - Inspection and Acceptance

## INSPECTION AND ACCEPTANCE TERMS

## Supplies/services will be inspected/accepted at:

CLIN INSPECT AT ALL Destination INSPECT BY Government ACCEPT AT Destination

ACCEPT BY Government



Page 4 of 22

## Section F - Deliveries or Performance

#### **DELIVERY INFORMATION**

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001 - 0002	PERIOD OF PERFORMANCE (POP): DATE OF AWARD TO 30-SEP-2009	ALL	DEFENSE MICROELECTRONICS ACTIVITY DMEA/MEAC 4234 54TH STREET MCCLELLAN CA 95652-2100 (916)231-1631 FOB: Destination	H94003

#### CLAUSES INCORPORATED BY REFERENCE

52.247-34 F.O.B. Destination

NOV 1991

CLAUSES INCORPORATED BY FULL TEXT

## F-13 PLACE OF PERFORMANCE

Services under this contract are required to be performed at the following location: Teledyne Scientific & Imaging, LLC, 1049 Camino Dos Rios, Thousand Oaks, CA 91360.





Page 5 of 22

Section G - Contract Administration Data

#### ACCOUNTING AND APPROPRIATION DATA

AA: 9780400 5149 090 794.98 25.27 (ME) Z3R8 ME8Z3R8MC8D501 033181 AMOUNT: \$701,960.00 CIN 8MC8D5010001: \$701,960.00

CLAUSES INCORPORATED BY FULL TEXT

#### **G-901 INVOICE REQUIREMENTS:**

The Contractor shall submit an electronic invoice through the DCMA office in Block 6 or the cognizant DCAA office. Copies of invoices and back-up information shall be forwarded to:

- Defense Microelectronics Activity Contract Office (<sup>[b](6]</sup> 4234 54<sup>th</sup> Street McClellan, CA 95652-2100 Phone (916)231-1527 or FAX at (916)231-2827 or email <sup>[b](6)</sup> @dmea.osd.mil
- (2) One (1) copy to:

Defense Microelectronics Activity Attn: 4234 54<sup>th</sup> Street McClellan, CA 95652-2100 Phone (916) 231-1631; email: <sup>(b)(6)</sup> @dmea.osd.mil.

Electronic copies of vouchers and back-up information are acceptable for DMEA copies.

Additional information for Contractors on DCAA procedures and examples of vouchers may be found at <u>www.dcaa.mil</u>

## Section I - Contract Clauses

## CLAUSES INCORPORATED BY REFERENCE

FO 000 1		ПП 2004
52.202-1	Definitions	JUL 2004
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	SEP 2006
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal	JAN 1997
	or Improper Activity	
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal	SEP 2007
	Transactions	
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.204-7	Central Contractor Registration	APR 2008
52.209-6	Protecting the Government's Interest When Subcontracting	SEP 2006
	With Contractors Debarred, Suspended, or Proposed for	
	Debarment	
52.211-15	Defense Priority And Allocation Requirements	APR 2008
52.215-2	Audit and RecordsNegotiation	JUN 1999
52.215-8	Order of PrecedenceUniform Contract Format	OCT 1997
52.215-10	Price Reduction for Defective Cost or Pricing Data	OCT 1997
52.215-11	Price Reduction for Defective Cost of Pricing Data-	OCT 1997
52.215-11	Modifications	001 1997
52.215-12	Subcontractor Cost or Pricing Data	OCT 1997
	Subcontractor Cost or Pricing DataModifications	
52.215-13	Integrity of Unit Prices	OCT 1997
52.215-14		OCT 1997
52.215-15	Pension Adjustments and Asset Reversions	OCT 2004
52.215-16	Facilities Capital Cost of Money	JUN 2003
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits	5 JUL 2005
<b>50 01 5 1</b> 0	(PRB) Other than Pensions	0.000
52.215-19	Notification of Ownership Changes	OCT 1997
52.215-21	Requirements for Cost or Pricing Data or Information Other	OCT 1997
·	Than Cost or Pricing DataModifications	
52.216-7	Allowable Cost And Payment	DEC 2002
52.216-8	Fixed Fee	MAR 1997
52.219-8	Utilization of Small Business Concerns	MAY 2004
52.219-9	Small Business Subcontracting Plan	APR 2008
52.222-2	Payment For Overtime Premiums	JUL 1990
52.222-3	Convict Labor	JUN 2003
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-22	Previous Contracts And Compliance Reports	FEB 1999
52.222-26	Equal Opportunity	MAR 2007
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans	SEP 2006
	of the Vietnam Era, and Other Eligible Veterans	
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-39	Notification of Employee Rights Concerning Payment of	DEC 2004
	Union Dues or Fees	
52.222-50	Combating Trafficking in Persons	AUG 2007

# Page 7 of 22

52.223-6	Drug-Free Workplace	MAY 2001
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.227-1	Authorization and Consent	DEC 2007
52.227-1 Alt I	Authorization And Consent (Dec 2007) - Alternate I	APR 1984
52.227-2	Notice And Assistance Regarding Patent And Copyright	DEC 2007
	Infringement	
52.227-11	Patent RightsOwnership By The Contractor	DEC 2007
52.227-16	Additional Data Requirements	JUN 1987
52.228-7	Insurance-Liability To Third Persons	MAR 1996
52.232-20	Limitation Of Cost	APR 1984
52.232-23	Assignment Of Claims	JAN 1986
52,232-25	Prompt Payment	OCT 2003
52.232-33	Payment by Electronic Funds TransferCentral Contractor	OCT 2003
52.252-30	Registration	001 2005
52.233-1	Disputes	JUL 2002
52.233-2	Service Of Protest	SEP 2006
52.233-3	Protest After Award	AUG 1996
52.233-3 Alt I	Protest After Award (Aug 1996) - Alternate I	JUN 1985
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.237-10	Identification of Uncompensated Overtime	OCT 1997
52.242-1	Notice of Intent to Disallow Costs	APR 1984
52.242-3	Penalties for Unallowable Costs	MAY 2001
52.242-4	Certification of Final Indirect Costs	JAN 1997
52.242-13	Bankruptcy	JUL 1995
52.242-15	Stop-Work Order	AUG 1989
52.242-15 Alt I	Stop-Work Order (Aug 1989) - Alternate I	APR 1984
52.243-2 Alt I	ChangesCost-Reimbursement (Aug 1987) - Alternate I	APR 1984
52.243-2 Alt III	ChangesCost-Reimbursement (Aug 1987) - Alternate III	APR 1984
52.243-2 Alt V	ChangesCost-Reimbursement (Aug 1987) - Alternate V	APR 1984
52.243-7	Notification Of Changes	APR 1984
52.244-2	Subcontracts	JUN 2007
52.244-2 Alt I	Subcontracts (Jun 2007) - Alternate I	JUN 2007
52.244-5	Competition In Subcontracting	DEC 1996
52.246-5	Inspection Of Services Cost-Reimbursement	APR 1984
52.246-9	Inspection Of Research And Development (Short Form)	APR 1984
52.246-25	Limitation Of LiabilityServices	FEB 1997
52.249-6	Termination (Cost Reimbursement)	MAY 2004
52.249-14	Excusable Delays	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense	
	Contract-Related Felonies	
252.204-7002	Payment For Subline Items Not Separately Priced	DEC 1991
252.204-7004 Alt A	Central Contractor Registration (52.204-7) Alternate A	SEP 2007
252.204-7009	Requirements Regarding Potential Access to Export-	JUL 2008
252.205-7000	Controlled Items Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.208-7000	Intent To Furnish Precious Metals As Government	DEC 1991
252.200-1000	Furnished Material	DUC 1771
252.209-7001	Disclosure of Ownership or Control by the Government of a	OCT 2006
	Terrorist Country	
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By	yDEC 2006
	The Government of a Terrorist Country	

#### Page 8 of 22

252.211-7003	Item Identification and Valuation	AUG 2008
252.215-7000	Pricing Adjustments	DEC 1991
252.215-7002	Cost Estimating System Requirements	DEC 2006
252.219-7003	Small Business Subcontracting Plan (DOD Contracts)	APR 2007
252.225-7001	Buy American Act And Balance Of Payments Program	JUN 2005
252.225-7012	Preference For Certain Domestic Commodities	MAR 2008
252.225-7014	Preference For Domestic Specialty Metals	JUN 2005
252.226-7001	Utilization of Indian Organizations and Indian-Owned	SEP 2004
	Economic Enterprises, and Native Hawaiian Small Business	
	Concerns	
252.227-7000	Non-estoppel	OCT 1966
252.227-7016	Rights in Bid or Proposal Information	JUN 1995
252.227-7030	Technical DataWithholding Of Payment	MAR 2000
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 1999
252.227-7039	PatentsReporting Of Subject Inventions	APR 1990
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests and Receiving	MAR 2008
	Reports	
252.235-7011	Final Scientific or Technical Report	NOV 2004
252.242-7004	Material Management And Accounting System	NOV 2005
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.246-7000	Material Inspection And Receiving Report	MAR 2008
252.247-7023	Transportation of Supplies by Sea	MAY 2002

#### CLAUSES INCORPORATED BY FULL TEXT

## 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these addresses:

#### http://farsite.hill.af.mil./vffara.htm

http://www.acquisition.gov/far/

(End of clause)

#### 252.227-7013 RIGHTS IN TECHNICAL DATA--NONCOMMERCIAL ITEMS. (NOV 1995)

(a) Definitions. As used in this clause:

(1) Computer data base means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

(2) Computer program means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations.





(3) Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

(4) Computer software documentation means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

(5) Detailed manufacturing or process data means technical data that describe the steps, sequences, and conditions of manufacturing, processing or assembly used by the manufacturer to produce an item or component or to perform a process.

(6) Developed means that an item, component, or process exists and is workable. Thus, the item or component must have been constructed or the process practiced. Workability is generally established when the item, component, or process has been analyzed or tested sufficiently to demonstrate to reasonable people skilled in the applicable art that there is a high probability that it will operate as intended. Whether, how much, and what type of analysis or testing is required to establish workability depends on the nature of the item, component, or process, and the state of the art. To be considered "developed," the item, component, or process need not be at the stage where it could be offered for sale or sold on the commercial market, nor must the item, component, or process be actually reduced to practice within the meaning of Title 35 of the United States Code.

(7) Developed exclusively at private expense means development was accomplished entirely with costs charged to indirect cost pools, costs not allocated to a government contract, or any combination thereof.

(i) Private expense determinations should be made at the lowest practicable level.

(ii) Under fixed-price contracts, when total costs are greater than the firm-fixed-price or ceiling price of the contract, the additional development costs necessary to complete development shall not be considered when determining whether development was at government, private, or mixed expense.

(8) Developed exclusively with government funds means development was not accomplished exclusively or partially at private expense.

(9) Developed with mixed funding means development was accomplished partially with costs charged to indirect cost pools and/or costs not allocated to a government contract, and partially with costs charged directly to a government contract.

(10) Form, fit, and function data means technical data that describes the required overall physical, functional, and performance characteristics (along with the qualification requirements, if applicable) of an item, component, or process to the extent necessary to permit identification of physically and functionally interchangeable items.

(11) Government purpose means any activity in which the United States Government is a party, including cooperative agreements with international or multi-national defense organizations, or sales or transfers by the United States Government to foreign governments or international organizations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorize others to do so.

(12) Government purpose rights means the rights to---

(i) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and





(ii) Release or disclose technical data outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for United States government purposes.

(13) Limited rights means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting limited rights, release or disclose the technical data outside the Government, use the technical data for manufacture, or authorize the technical data to be used by another party, except that the Government may reproduce, release or disclose such data or authorize the use or reproduction of the data by persons outside the Government if reproduction, release, disclosure, or use is--

(i) Necessary for emergency repair and overhaul; or

(ii) A release or disclosure of technical data (other than detailed manufacturing or process data) to, or use of such data by, a foreign government that is in the interest of the Government and is required for evaluational or informational purposes;

(iii) Subject to a prohibition on the further reproduction, release, disclosure, or use of the technical data; and

(iv) The contractor or subcontractor asserting the restriction is notified of such reproduction, release, disclosure, or use.

(14) Technical data means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

(15) Unlimited rights means rights to use, modify, reproduce, perform, display, release, or disclose technical data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

(b) Rights in technical data. The Contractor grants or shall obtain for the Government the following royalty free, world-wide, nonexclusive, irrevocable license rights in technical data other than computer software documentation (see the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause of this contract for rights in computer software documentation):

(1) Unlimited rights.

The Government shall have unlimited rights in technical data that are--

(i) Data pertaining to an item, component, or process which has been or will be developed exclusively with Government funds;

(ii) Studies, analyses, test data, or similar data produced for this contract, when the study, analysis, test, or similar work was specified as an element of performance;

(iii) Created exclusively with Government funds in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes;

(iv) Form, fit, and function data;

(v) Necessary for installation, operation, maintenance, or training purposes (other than detailed manufacturing or process data);

(vi) Corrections or changes to technical data furnished to the Contractor by the Government;





(vii) Otherwise publicly available or have been released or disclosed by the Contractor or subcontractor without restrictions on further use, release or disclosure, other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the technical data to another party or the sale or transfer of some or all of a business entity or its assets to another party;

(viii) Data in which the Government has obtained unlimited rights under another Government contract or as a result of negotiations; or

(ix) Data furnished to the Government, under this or any other Government contract or subcontract thereunder, with--

(A) Government purpose license rights or limited rights and the restrictive condition(s) has/have expired, or

(B) Government purpose rights and the Contractor's exclusive right to use such data for commercial purposes has expired.

(2) Government purpose rights.

(i) The Government shall have government purpose rights for a five-year period, or such other period as may be negotiated, in technical data--

(A) That pertain to items, components, or processes developed with mixed funding except when the Government is entitled to unlimited rights in such data as provided in paragraphs (b)(ii) and (b)(iv) through (b)(ix) of this clause; or

(B) Created with mixed funding in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The five-year period, or such other period as may have been negotiated, shall commence upon execution of the contract, subcontract, letter contract (or similar contractual instrument), contract modification, or option exercise that required development of the items, components, or processes or creation of the data described in paragraph (b)(2)(i)(B) of this clause. Upon expiration of the five-year or other negotiated period, the Government shall have unlimited rights in the technical data.

(iii) The Government shall not release or disclose technical data in which it has government purpose rights unless-

(A) Prior to release or disclosure, the intended recipient is subject to the non-disclosure agreement at 227.7103-7 of the Defense Federal Acquisition Regulation Supplement (DFARS); or

(B) The recipient is a Government contractor receiving access to the data for performance of a Government contract that contains the clause at DFARS 252.227-7025, Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends.

(iv) The Contractor has the exclusive right, including the right to license others, to use technical data in which the Government has obtained government purpose rights under this contract for any commercial purpose during the time period specified in the government purpose rights legend prescribed in paragraph (f)(2) of this clause.

(3) Limited rights.

(i) Except as provided in paragraphs (b)(1)(ii) and (b)(1)(iv) through (b)(1)(ix) of this clause, the Government shall have limited rights in technical data--

(A) Pertaining to items, components, or processes developed exclusively at private expense and marked with the limited rights legend prescribed in paragraph (f) of this clause; or

(B) Created exclusively at private expense in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The Government shall require a recipient of limited rights data for emergency repair or overhaul to destroy the data and all copies in its possession promptly following completion of the emergency repair/overhaul and to notify the Contractor that the data have been destroyed.

(iii) The Contractor, its subcontractors, and suppliers are not required to provide the Government additional rights to use, modify, reproduce, release, perform, display, or disclose technical data furnished to the Government with limited rights. However, if the Government desires to obtain additional rights in technical data in which it has limited rights, the Contractor agrees to promptly enter into negotiations with the Contracting Officer to determine whether there are acceptable terms for transferring such rights. All technical data in which the Contractor has granted the Government additional rights shall be listed or described in a license agreement made part of the contract. The license shall enumerate the additional rights granted the Government in such data.

(4) Specifically negotiated license rights.

The standard license rights granted to the Government under paragraphs (b)(1) through (b)(3) of this clause, including the period during which the Government shall have government purpose rights in technical data, may be modified by mutual agreement to provide such rights as the parties consider appropriate but shall not provide the Government lesser rights than are enumerated in paragraph (a)(13) of this clause. Any rights so negotiated shall be identified in a license agreement made part of this contract.

(5) Prior government rights.

Technical data that will be delivered, furnished, or otherwise provided to the Government under this contract, in which the Government has previously obtained rights shall be delivered, furnished, or provided with the preexisting rights, unless--

(i) The parties have agreed otherwise; or

(ii) Any restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose the data have expired or no longer apply.

(6) Release from liability.

The Contractor agrees to release the Government from liability for any release or disclosure of technical data made in accordance with paragraph (a)(13) or (b)(2)(iii) of this clause, in accordance with the terms of a license negotiated under paragraph (b)(4) of this clause, or by others to whom the recipient has released or disclosed the data and to seek relief solely from the party who has improperly used, modified, reproduced, released, performed, displayed, or disclosed Contractor data marked with restrictive legends.

(c) Contractor rights in technical data. All rights not granted to the Government are retained by the Contractor.

(d) Third party copyrighted data. The Contractor shall not, without the written approval of the Contracting Officer, incorporate any copyrighted data in the technical data to be delivered under this contract unless the Contractor is the copyright owner or has obtained for the Government the license rights necessary to perfect a license or licenses in the deliverable data of the appropriate scope set forth in paragraph (b) of this clause, and has affixed a statement of the license or licenses obtained on behalf of the Government and other persons to the data transmittal document.

(e) Identification and delivery of data to be furnished with restrictions on use, release, or disclosure. (1) This paragraph does not apply to restrictions based solely on copyright.





(2) Except as provided in paragraph (e)(3) of this clause, technical data that the Contractor asserts should be furnished to the Government with restrictions on use, release, or disclosure are identified in an attachment to this contract (the Attachment). The Contractor shall not deliver any data with restrictive markings unless the data are listed on the Attachment.

(3) In addition to the assertions made in the Attachment, other assertions may be identified after award when based on new information or inadvertent omissions unless the inadvertent omissions would have materially affected the source selection decision. Such identification and assertion shall be submitted to the Contracting Officer as soon as practicable prior to the scheduled date for delivery of the data, in the following format, and signed by an official authorized to contractually obligate the Contractor: Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data.

The Contractor asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data should be restricted--

Technical data		Asserted	Name of Person
to be Furnished	Basis for	Rights	Asserting
With Restrictions \1/	Assertion \2/	Category \3/	Restrictions \4/

# (IN THE CONTRACTOR'S FINAL TECHNICAL PROPOSAL # 67843 THE CONTRACTOR HAS ASSERTED NO DATA RIGHTS ASSERTIONS).

\1/ If the assertion is applicable to items, components or processes developed at private expense, identify both the data and each such items, component, or process.

\2/ Generally, the development of an item, component, or process at private expense, either exclusively or partially, is the only basis for asserting restrictions on the Government's rights to use, release, or disclose technical data pertaining to such items, components, or processes. Indicate whether development was exclusively or partially at private expense. If development was not at private expense, enter the specific reason for asserting that the Government's rights should be restricted.

\3/ Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited or government purpose rights under this or a prior contract, or specifically negotiated licenses).

# (IN THE CONTRACTOR'S FINAL TECHNICAL PROPOSAL # 67843 THE CONTRACTOR HAS ASSERTED NO DATA RIGHTS ASSERTIONS).

\4/ Corporation, individual, or other person, as appropriate. Date

Printed Name and Title

Signature

(End of identification and assertion)

(4) When requested by the Contracting Officer, the Contractor shall provide sufficient information to enable the Contracting Officer to evaluate the Contractor's assertions. The Contracting Officer reserves the right to add the Contractor's assertions to the Attachment and validate any listed assertion, at a later date, in accordance with the procedures of the Validation of Restrictive Markings on Technical Data clause of this contract.

(f) Marking requirements. The Contractor, and its subcontractors or suppliers, may only assert restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data to be delivered





Page 14 of 22

under this contract by marking the deliverable data subject to restriction. Except as provided in paragraph (f)(5) of this clause, only the following legends are authorized under this contract: the government purpose rights legend at paragraph (f)(2) of this clause; the limited rights legend at paragraph (f)(3) of this clause; or the special license rights legend at paragraph (f)(4) of this clause; and/or a notice of copyright as prescribed under 17 U.S.C. 401 or 402.

(1) General marking instructions. The Contractor, or its subcontractors or suppliers, shall conspicuously and legibly mark the appropriate legend on all technical data that qualify for such markings. The authorized legends shall be placed on the transmittal document or storage container and, for printed material, each page of the printed material containing technical data for which restrictions are asserted. When only portions of a page of printed material are subject to the asserted restrictions, such portions shall be identified by circling, underscoring, with a note, or other appropriate identifier. Technical data transmitted directly from one computer or computer terminal to another shall contain a notice of asserted restrictions. Reproductions of technical data or any portions thereof subject to asserted restrictions shall also reproduce the asserted restrictions.

(2) Government purpose rights markings. Data delivered or otherwise furnished to the Government purpose rights shall be marked as follows:

Government Purpose Rights

Contract No.		
Contractor Name		
Contractor Address	 	
Expiration Date	 	

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(2) of the Rights in Technical Data--Noncommercial Items clause contained in the above identified contract. No restrictions apply after the expiration date shown above. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(3) Limited rights markings. Data delivered or otherwise furnished to the Government with limited rights shall be marked with the following legend:

Limited Rights		
Contract No	 	
Contractor Name	 	
Contractor Address	 	

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(3) of the Rights in Technical Data--Noncommercial Items clause contained in the above identified contract. Any reproduction of technical data or portions thereof marked with this legend must also





reproduce the markings. Any person, other than the Government, who has been provided access to such data must promptly notify the above named Contractor.

(End of legend)

(4) Special license rights markings. (i) Data in which the Government's rights stem from a specifically negotiated license shall be marked with the following legend:

Special License Rights

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these data are restricted by Contract No. \_\_\_\_\_\_ (Insert contract number) \_\_\_\_\_\_, License No. \_\_\_\_\_\_ (Insert license identifier) \_\_\_\_\_\_. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(ii) For purposes of this clause, special licenses do not include government purpose license rights acquired under a prior contract (see paragraph (b)(5) of this clause).

(5) Pre-existing data markings. If the terms of a prior contract or license permitted the Contractor to restrict the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data deliverable under this contract, and those restrictions are still applicable, the Contractor may mark such data with the appropriate restrictive legend for which the data qualified under the prior contract or license. The marking procedures in paragraph (f)(1) of this clause shall be followed.

(g) Contractor procedures and records. Throughout performance of this contract, the Contractor and its subcontractors or suppliers that will deliver technical data with other than unlimited rights, shall--

(1) Have, maintain, and follow written procedures sufficient to assure that restrictive markings are used only when authorized by the terms of this clause; and

(2) Maintain records sufficient to justify the validity of any restrictive markings on technical data delivered under this contract.

(h) Removal of unjustified and nonconforming markings. (1) Unjustified technical data markings. The rights and obligations of the parties regarding the validation of restrictive markings on technical data furnished or to be furnished under this contract are contained in the Validation of Restrictive Markings on Technical Data clause of this contract. Notwithstanding any provision of this contract concerning inspection and acceptance, the Government may ignore or, at the Contractor's expense, correct or strike a marking if, in accordance with the procedures in the Validation of Restrictive Markings on Technical Data clause of this contract, a restrictive marking is determined to be unjustified.

(2) Nonconforming technical data markings. A nonconforming marking is a marking placed on technical data delivered or otherwise furnished to the Government under this contract that is not in the format authorized by this contract. Correction of nonconforming markings is not subject to the validation of Restrictive Markings on Technical Data clause of this contract. If the Contracting Officer notifies the Contractor of a nonconforming marking marking within sixty (60) days, the Government may ignore or, at the Contractor's expense, remove or correct any nonconforming marking.

(i) Relation to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government under any patent.





#### Page 16 of 22

(j) Limitation on charges for rights in technical data. (1) The Contractor shall not charge to this contract any cost, including, but not limited to, license fees, royalties, or similar charges, for rights in technical data to be delivered under this contract when--

(i) The Government has acquired, by any means, the same or greater rights in the data; or

(ii) The data are available to the public without restrictions.

(2) The limitation in paragraph (j)(1) of this clause--

(i) Includes costs charged by a subcontractor or supplier, at any tier, or costs incurred by the Contractor to acquire rights in subcontractor or supplier technical data, if the subcontractor or supplier has been paid for such rights under any other Government contract or under a license conveying the rights to the Government; and

(ii) Does not include the reasonable costs of reproducing, handling, or mailing the documents or other media in which the technical data will be delivered.

(k) Applicability to subcontractors or suppliers. (1) The Contractor shall ensure that the rights afforded its subcontractors and suppliers under 10 U.S.C. 2320, 10 U.S.C. 2321, and the identification, assertion, and delivery processes of paragraph (e) of this clause are recognized and protected.

(2) Whenever any technical data for noncommercial items is to be obtained from a subcontractor or supplier for delivery to the Government under this contract, the Contractor shall use this same clause in the subcontract or other contractual instrument, and require its subcontractors or suppliers to do so, without alteration, except to identify the parties. No other clause shall be used to enlarge or diminish the Government's, the Contractor's, or a higher-tier subcontractor's or supplier's rights in a subcontractor's or supplier's technical data.

(3) Technical data required to be delivered by a subcontractor or supplier shall normally be delivered to the next higher-tier contractor, subcontractor, or supplier. However, when there is a requirement in the prime contract for data which may be submitted with other than unlimited rights by a subcontractor or supplier, then said subcontractor or supplier may fulfill its requirement by submitting such data directly to the Government, rather than through a higher-tier contractor, subcontractor, or supplier.

(4) The Contractor and higher-tier subcontractors or suppliers shall not use their power to award contracts as economic leverage to obtain rights in technical data from their subcontractors or suppliers. (5) In no event shall the Contractor use its obligation to recognize and protect subcontractor or supplier rights in technical data as an excuse for failing to satisfy its contractual obligations to the Government.

(End of clause)





Page 17 of 22

## Section J - List of Documents, Exhibits and Other Attachments

#### CLAUSES INCORPORATED BY FULL TEXT

## PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS SECTION J LIST OF ATTACHMENTS (All listed attachments are at the end of this document)

FORM NR	TITLE	DATE	NR OF PAGES
NA	Teledyne JTRS Integrated Circuits Statement of Work (SOW) Task # 08-8D5	04 Sep 2008	4
DD Form 1423	Contract Data Requirements List	03 Sep 2008	1

Page 18 of 22

# Teledyne JTRS Integrated Circuits Statement of Work (SOW) Task # 08-8D5 4 September 2008

## 1. Scope

1.1 Title: Joint Tactical Radio System (JTRS) Integrated Circuits

## 1.2 Background

Complex wireless systems like the Joint Tactical Radio System (JTRS) combine the need for system flexibility, high data throughput, and high security, in a miniature, portable, and power efficient package. System designers have to date largely taken the brute force approach of integrating multiple systems into a single product with great attention to packaging. The dramatic progress in radio frequency integrated circuits has enabled monolithic integration of many of the active components and miniaturization.

The passive components such as filters, resonators, and antenna multiplexers have remained problematic. Advanced packaging and miniaturization of surface acoustic wave (SAW) and film bulk acoustic resonator (FBAR) filters has made it practical to include multiple front end configurations and selection by radio frequency (RF) switching. However, performance is limited by the insertion loss and cross talk of the switches. Micro electro mechanical system (MEMS) devices have shown some promise for high isolation, but speed and reliability remain issues. A tunable or switchable resonator would provide a single device capable of covering multiple bands, thus eliminating the need for multiple systems and enable entirely new architectures for wireless systems.

Barium strontium titanate (BST) thin films display a switchable and tunable acoustic resonance. The switchable resonance is electric field induced as a result of the electrostrictive properties of BST with no resonance observed at zero bias. The acoustic resonance can be tuned with an applied electric field. A tunable acoustic resonator technology will eliminate process steps and offer solutions including switchable and tunable RF filters.

**1.3 Purpose:** The purpose of this task is to investigate high Q acoustic resonators (AR) on silicon substrates as switches for RF applications. The AR designs will be targeted to function within the frequency range of 1-3 GHz. The BST AR devices will be manufactured on silicon substrates for potential use in military applications such as JTRS Mobile Handsets. Although this effort has risk due to the use of materials with different Coefficient of Thermal Expansion, there is a possibility of a high payoff. When successful, the payoff will be reduced cost to fabricate large quantities of these AR switches because the inexpensive silicon substrates.

- 2.0 Referenced Documents:
- 2.1 Government Documents: None
- 2.2 Other Documents: None

## 2.3 Government Furnished Equipment/Information (GFE/GFI): None



# 3.0 Scope of Work

# 3.1 General

## 3.1.1 Programmatic Management Support:

The contractor shall perform administrative, technical, and financial management function during the course of this effort and shall maintain a status of their effort towards achieving the objectives, including all technical activities and efforts, problems/deficiencies, impacts, and recommended solutions. (A001)

**3.1.2 Technical Interchange Meetings**: The contractor shall hold periodic status reviews with the Government. As a minimum, a Kickoff TIM and one design review shall be conducted at the contractor's facility. The Contracting Officer's Representative (COR) shall review and discuss any concerns or issues at periodic reviews with the contractor.

**3.1.3 Travel:** The contractor is not required to travel to accomplish this requirement. Requests to travel shall be forwarded to the PCO for delivery order modification prior to travel.

**3.1.4 Limited Rights:** The contractor shall identify and receive written Government approval from the PCO, prior to committing to the use of, any privately developed items, intellectual property, processes, computer software and/or technical data which they:

- (i) Intend to deliver with Limited Rights;
- (ii) Intend to deliver with Government Purpose License Rights;
- (iii) Intend to deliver with Restricted Rights;
- (iv) Have not yet determined if such rights should apply.

**3.1.5 Disposition of Excess Material and Contractor-Acquired Property (CAP):** The contractor shall provide 2 wafers to DMEA for testing purposes. All remaining CAP will be consumed or destroyed during manufacturing and testing.

## 3.2 Major Milestones

The contractor shall propose a schedule for completion of all assigned tasks and deliverables. The period of performance shall be as specified in Section F of the Contract.

# 3.3 Engineering Required

The contractor shall explore manufacturing techniques and materials to enable manufacture and design of acoustic resonators with a native switching capability for use in RF systems.

## 3.3.1 Acoustic Reflector Development

The contractor shall develop acoustic reflector substrates which are thermally compatible with barium strontium titanate (BST) thin films. The contractor shall test the substrate thermal integrity for BST thin film growth. The results of the testing shall be documented in the monthly report. The contractor shall develop the processes to fabricate BST Acoustic Resonators on the reflector substrates. The COR shall review and discuss any concerns or issues at the periodic



reviews with the contractor. The contractor shall document the process in the final report. (A001, A002)

# 3.3.2 Filter Design

The contractor shall develop a filter design kit and process control monitors. The contractor shall verify requirements, design proof of concept filters for the 1 to 3 GHz frequency range. The design goals shall be filters that are: linear, low loss and high Quality Factor (Q>200), low current, and switch with the application of a direct current voltage. The contractor shall document the high level design in the monthly report. (A001). The COR shall review and discuss any concerns or issues at the periodic reviews with the contractor.

## **3.3.3 Filter Fabrication**

The contractors shall fabricate proof of concept filters.

## 3.3.4 Test and Characterization

The contractor shall perform device testing and characterization. The contractor shall outline the planned testing in a monthly report. The COR shall review and discuss any concerns or issues at the periodic reviews with the contractor. With the Final Report, the contractor shall deliver either filter die or wafer; with bond pad information and circuit function for each pin with the Final Report. The contractor shall document the wafer lot test results as an appendix to the Final Report. (A001, A002)

# 3.4 Final Report

The contractor shall summarize all work accomplished under this SOW, including significant technical accomplishments, problems encountered, solutions implemented, and recommendations for improvement. At the conclusion of the contract, the contractor shall prepare a presentation of the results of this effort. The presentation shall be given via TELCON to the COR. The presentation shall be in PowerPoint format. The presentation shall be delivered as an attachment to the Final Report. (A002)

**4.0 Data Items:** All delivered data shall be marked: "<u>Distribution Statement E.</u> Distribution authorized to DOD Components only, documents contain contractor proprietary and intellectual property. Other requests for this document shall be referred to DMEA/ME."

**4.1 Data Distribution List:** The contractor shall deliver electronic format using Microsoft Office products or Adobe PDF via electronic mail to individuals identified in the following distribution list defining "electronic" copies.





Page 21 of 22

Code	Copies (regular/reproducible/electronic)	Address
DMEA/MEDR Project Engineer	All Deliverables 0/0/1 The contractor shall deliver electronic copies via e-mail in Microsoft Office Products or in Adobe PDF format to the address indicated. The subject block shall contain the SOW number, CDRL Title, and Date.	DMEA/MEAC Attn: 4235 54th Street McClellan, CA 95652-2100 (b)(6) Qdmea.osd.mil
DMEA/MED (Program Control)	Monthly Status Reports 0/0/1 Cover Letters all CDRLs 0/0/1	DMEA/MED ATSP Program Office Attn: <sup>[b)(6)</sup> 4234 54th Street <u>McClellan, CA 95652-2100</u> b)dmea.osd.mil
DMEA/MED (PCO)	Monthly Status Reports, 0/0/1 Meeting Minutes: 0/0/1 Cover letters for all CDRL items: 0/0/1	DMEA/MED Contracting Attn: <sup>(b)(6)</sup> 4234 54th Street Mac <sup>1</sup> a <sup>4</sup> lan, CA 95652-2100 Ddmea.osd.mil
DCMA/ Van Nuys	All Deliverables 0/0/1	DCMA-AVAW 16111 Plummer Street, Bldg 10, 2nd Floor Sepulveda. CA 91343 Attn: Phone (805) 504-7763 (b)(6) dcma.mil
DTIC	Final Technical Report 0/0/1 For other than paper copy – See instructions at http://www.dtic.mil/dtic/submit/guidan ce/index.html	Defense Technical Information Center, Attn: DTIC-O 5725 John J. Kingman Rd. Ft. Belvoir, VA 22060-6218



Page 22 of 22

	Form Approved OMD No. 0704-0180				- ALL AND A						
The public reportin sources, pathons acreat a/mis cole Operations and S precision of low at Hance DO NOV 10	g buoten for this collection i and meintaining the des- dian of information, includin points (of 2 - of 12 - of 12 points (of 2 - of 12 - of 12 points (of 2 - of 12 - of 12 points (of 12 - of 12 - of 12 point form for the ato	in smallen redikt snale s Striktor reny rengiy reny rengiy	ie estimated to creat anglating send to me n to accessing the to of a second second of control to access and completed form	ngo 200 harva par dan swing tra collector o wotar, to Deparation 204, rolington (wit 22 ly valle a collection of 15 valle a collection of	pentos, including J Information, San of Distriction Washi (2249/22, Rampion (2249/22, Rampion (2249/22	I the issues of any service is contracting to the issues of the issues of the issues of the state of the sweet is address state of the sweet is address state of the sweet is address of the issues of the issues issues of the issues of the issues of the of the issues of the issues of the issues of the issues of the issues of the issues of the	Down, carret Lina in aelan as, Directiona I no aviitasia valle Q. E c a lasad in Ti	200 0000 200 00 20 10 100 100 10 100 100 10 100 100 10 100 10	ing Sola 17 Ober Smarten 7 Ottor Milten	and the second se	
	UNEITEM NO.	E.EXT		C. CATEBORY	ň						
D. SYSTEWT	ÊM		E. CONTRAC			MACTOR					
Agile JTRS Integrated Circuits 7. DATAITEN NO. 2. TITLE OF DATA ITED			PR 3MC8DS01			he Scientifie & Itter te	ging, LL	£		; }	
A001	Stokus Report	-			y Status Rojecti				107. Passe Ha	osne:	
4 AUTHORITY CO	ita Logateticon Decement (Pa	9,	S. CONTRACT N	CPENER/CE		S. REQUISES OFFICE				A LOTIAN	
DI-MONT-SCOOT		See Bills 16.				DMEAMBAC				TOTAL P	4925
7.00253 REQ	(IPACINGE)			12. DATE OF HIRE	TOUBHISOION	NA. TETEMERTICH					
LT B.AFP GODE	- See Blk 16	MONTALY 11. OS OF DATE		See 2013 16 13. DATE OF SUB	EQUENT	. ADDRESSEE	b 20FiE3			1	
N/A	N/A		morth	13. DATE OF SUE SCOTTERSY See BIX 16			Dirai	Fier	Right		
13 REDASKO				-1		See SOW	and a second	and the los		1	
Contractor for compatible w	Paragraph 4) Distribution 1,1st				1						
BLK & SCW Para 3.1.1, 3.3.1, 5.3.2, 3.3.4										and a	
RLX 9: Distribution Straction required, Statement E: Distribution anthenized on							_	1		1	
	U.S. Covernment agencies, due reproprietary technology. Other requests shall be referred to DWEAGNEAC.						_	ļ		-	
BLK 12: Due NLT 15th of first full calendar month ARD. BLK 13: Subsequent submitteds due by 15th of each calendar month.										-	
								<u> </u>			
								1			
BLR 14: Electronic delivery preferred						15. TOTAL	*				
7.5817.57(a)189. (A002		z mileoromanej 3. suom Techniczi Report - Słady/Szrviczs Agile J						te TRS Integrated Circuits - Fintl Report			
4. AUTHORITY Da	HORIT / Data Requirement Detallerich Res.)			5. COUTRACT REFERENCE			L D WILLING CONTRA				EL
	DI-MISC-BRORET		See 201k 1/3			TIMEAAMEAC				TOTAL F	RIGE
7. DID 20 PEQ	STATES IN DIST STATEMENT REQUIRED		ENC?	8	V2 ONVE OF THE TOURS SHOW		NBUTICA				
DD DATP CODE	- See Bix 16	OTIN:		Ste Din 16 Natione of 2022	Eduzini	a, otherase	1 COFIER				
N/A		N/A		SUBRISSION			(interior)	Reg	-Buerry		
18. REALAPS						Sec 30W					
Contractor formal acceptable. Final report shall be in Word format. The Dismon briefing/presentation shall be in PowerPoint Format. Deliveries shall not prevent									ļ		
							nin fanjanani	-	-	1. [	
be looked or prevent sopy, print or other text editing. BLK St 3.3.1, 3.3.4, 3.4.								ł			
BLK 9: Distribution Statement required, Statement E: Distribution sutherized to U.S. Government agencies, due to proprietary technology. Other concests shall be											
referred to D		al attracts	Santinal rolt Marriet	anna an an 2 an Ata an					-		
BLR 12: 10 days prior to the end of the Period of Performance indicated in Section B of the Delivery Order										1	
BLK 14: Electronic delivery preferred											
Material shell be sent to the DMEA Contracting Officer's Representative (CDR).											
						15.TOTAL	•			-	
(b)(6)	<b>6</b> )%		H. DATE	(b)(6)	SADEV		J. DA	J. DATE			
			3 Sept 03			3 Sopt 08					
DD FORM 1	423-2, AUG 96 (E	G)	PRE	NOUS EDMINA	AY DE LIBED	-	age 1	01	Feges		