

1. Hēb_ koby .

MhckZ bb QMBox20 iē kēyxl k [hc fghj dēvgu_ :PI , ihde xē_ d dhfivxlj_ m ih rbg_ USB 2.0. < aēbf hēb hl f hēb hgb fhjnl bflv hl 16 h 64 bnnēpbēvgu oēzh\uo \oh\ .

MhckZ bb QMBox20 fhjnl bkhevah \ēk dē fghjdēvgu_ hēbeehēu , kdjhēzbaēju , Z lē _ ihēgh pggū_ wedlhggū_ ēhibēu -ēhēju k \hafhghk vx k oē_ gby ē ggūo gZ kdhf ēē_ dhfivxlē [a ēju\ b hēbgbc ih \fgb aēē .

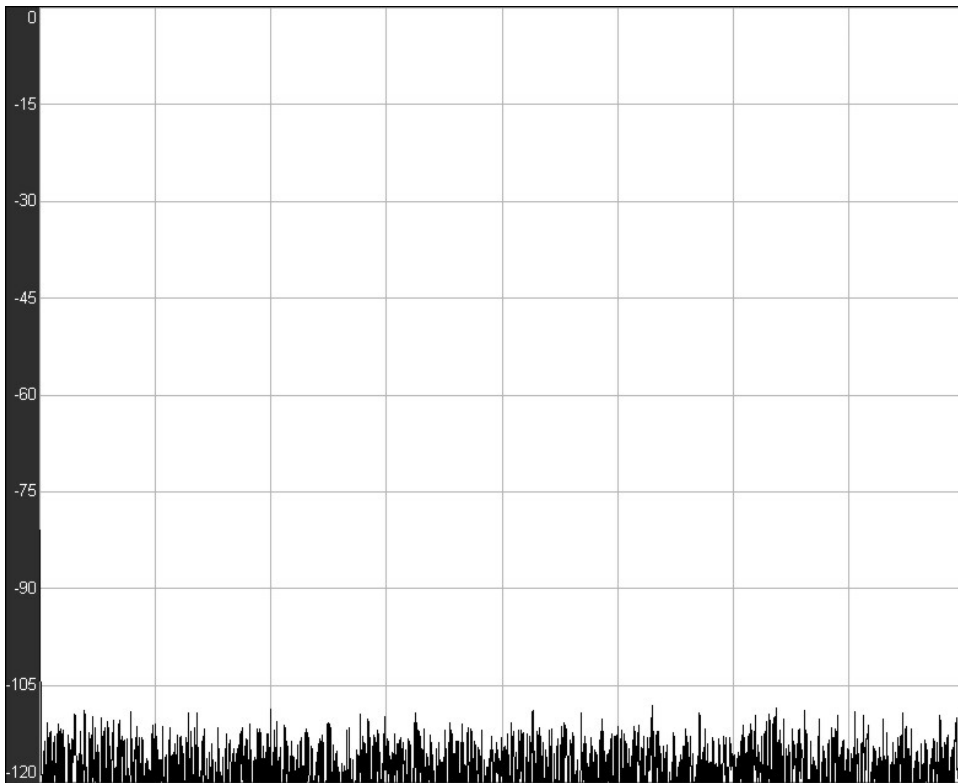
Ibfm s□□□

- Kofhl_ ogbēh_ bkheggē_ \ohguo dēē\ hēv_ :
 - \ukdhlhg u_ bafēby gēēbfh hl \uohēghē kijnlēgby bkghbdh \ bēzh\ ;
 - \hafhghk v bafēby \ukdh\hevlgūo k] gēh\ gē yfmx ē ēbb\g u_ ēbleb ;
 - gbadh_fēvgh_ ijoh^ gb_b hlknlk \b_ dhff mlēbhggūo rmfh\ ;
 - \ukdbc \ohēhc bfi_ ēk \ē dēzh\ ip exhf ēf_ ēlu .
- kafhghk I v hēh\j_ fgghē hēZ , hēldb , \bamēzbaēbb b kōēgby ēguo ē ēju\ \ lgb_ g_hēbgghē \fgb ;
- ehys_ \ dhfiedl ihēēb ij hēgh_ hēgb_ ēy dhfivxlē (ihēēk HK Windows XP b gh_) iha\hey_ :
 - ipkmiblv dē_ k mhckhf ēm ihē_ ihēxg gby, ē ihē_ evguo ē mbh\db b ihēbh\ēby ;
 - hēv_ , \bamēz babh\ē v b kōēyl v ēgu_ gZ kdbc ēē dhfivxl ē \ ēvghf \fgb .

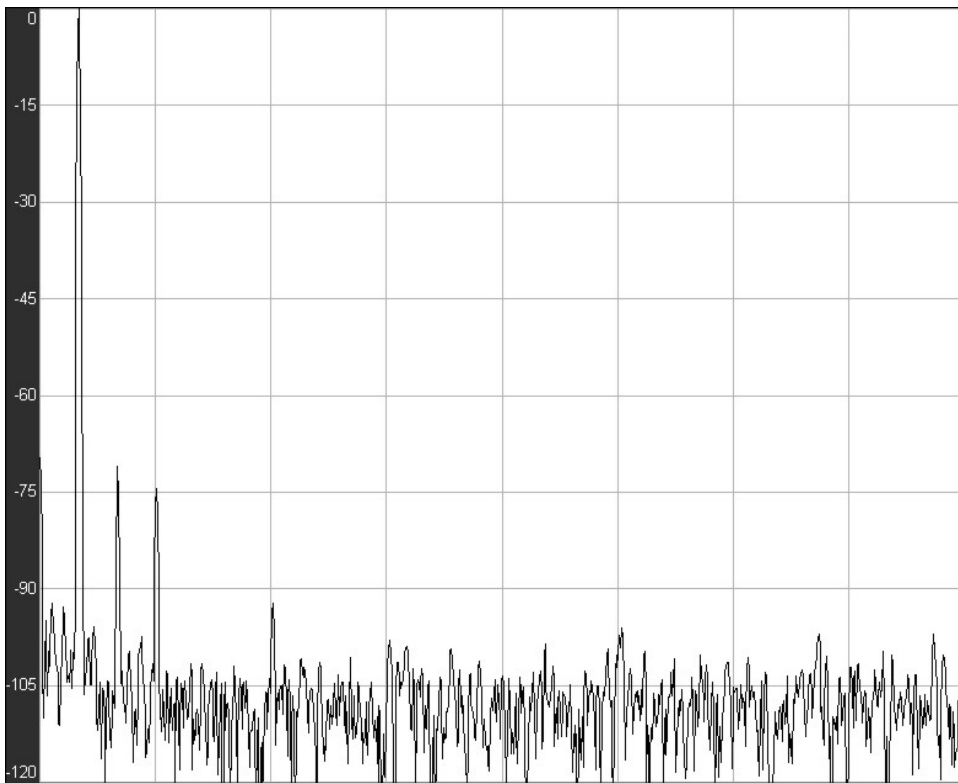
2. Logbook_ oʻzibolib

Fhév	QMBox20-16	QMBox20-24	QMBox20-64
Debl □ \ohñ\	16	24	□ 32 □ 64
Dglmdbg □ bke ggb_			
Lbi \ohñ\	bnnqpbzvgu_		
bzhgu \ohghñ bğz	± 5 <; ± 0.99 <, idexñk		ij hñgh
Fbfzvğz hñz khñk hpbñ\db z gguo, Fz wñe h\ /ñ	6	9	10
Fdbfevg □ ñIZ ññbaZ pbb, gZ dğ Ze	3 F=p		
zyghk :PI	14 ðl		
zrzsz khñghk - ey \ohghñ ^bzhgZ ± 5 < - ey \ohghñ ^bzhgZ ± 0.99 <	1.2 f< 0.7 f<		
ehñc lh d, ey exñ ð ñfZ ð hlu	0.1 g: (lbi)		
ehğz zf dhk , ey exññ ñfZ ð hlu	25 iN (lbi)		
Hgh\ğz ihñghk , ip\ggZ y dñzh gm	0.05 % (fñk)		
lhñgb_ ñgnñghc ihfob (e y \ohghñ bğz 4<, 10 d=p)	-75 ^ (lbi)		
lhñgb_ fdğz vghñ ihoh^ gby (ey \ohghñ bğz 10 d=p ip ñl_ idexq gby dğzh\ 2 F=p)	-89 ^ (lbi)		
AzbIZ \ohñ\ hl igñgby : - lhkyggh_ gñ_ gb_ (10 ñmg^) - Bfim evk (1 fk)	±25 < ±250 <		
Bgnjck	USB 2.0		
lñb_	100-240 < ifg ; beb 24 < ihkyg .		
Mh\by wdlemñbb	hl +5° ñ +55° ip hghñlevghc veñh kb hl 5% ñ 90%		
=ñu	140x190x60 ff	140x190x80 ff	260x260x160 ff

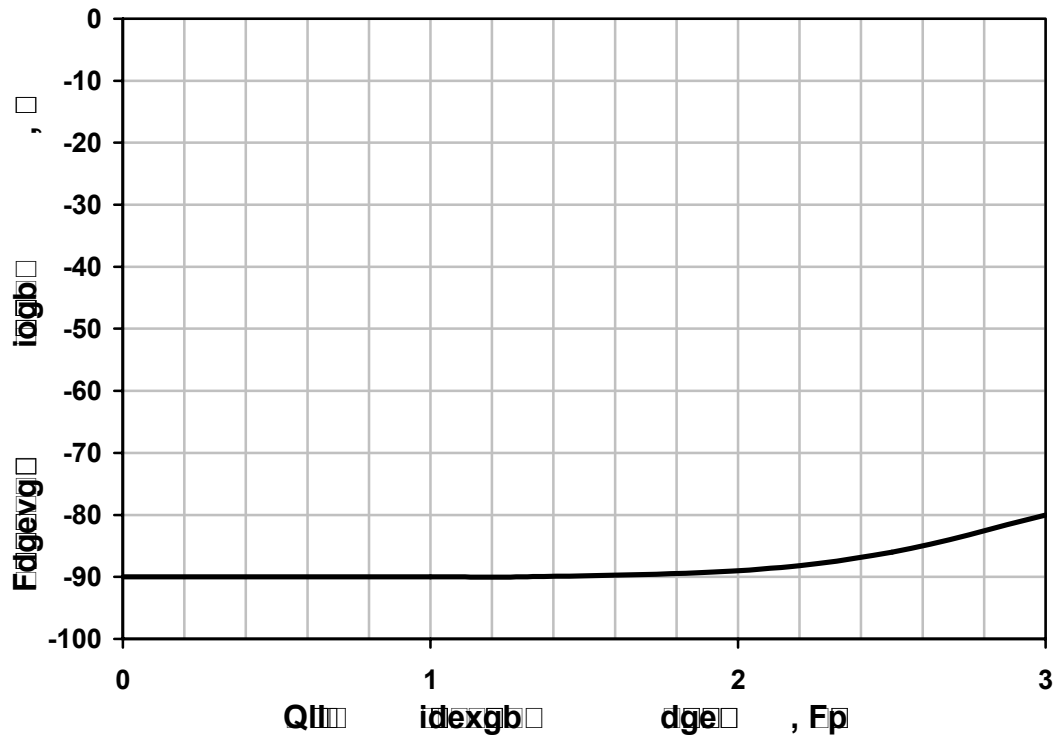
G□ jkngdZ gb`_ iEegu lbibgu_ oZl jkdb dZAZ :PI mjkckZ
 QMBox20: gebgcu _ bEz by, rmf \ ihek 1/2 f:PI , Z lE_ j Zbd aZbfhk
 fdZvghj ihoh `gby hl Elu idexg by dZeh\ .



Rmf □ ie□ 1/2 f:P □ ib □ □□□□ □□lu :PI 3 Ep .



Ge bg_cgu _ bd □ g b□ Kbge - b gm 10 dp fie blm□ 5□. Q□ □□□□ lu :PI - 3 Ep .



AZ bkbfhk v f dg e vg i o gb u ide x gb dg e .

3. :pbldlmZ .

Hgh\Z mlhck b QMBox20 – 8-dZvgu_ fhmeb :PI **QMS20**, dhlju_ mlZeb\Zk \ ^ bguc dhj i mk < aZbfhb hl dhebk \Z mlzh\egguo fh mec , mlhckh QMBox20 fh ` _l jlv \uiheggh \ 2-, 3- b 8-fhmevghf \Zl_ , lZbf hZ ahf , pgu_ fhEb mlhckZ pZeb\k dhebhfh \ohguo dZ eh\ :

Gagb □ feb	QMBox20-16	QMBox20-24	QMBox20-64
Deb □ I □ □ mI □ gegguo f □ me □ c QMS20	2	3	□ 4 □ 8
Deb □ I □ □ oguo d □ g □ □ □	16	24	hl 32 h 64
=Z l u	140x190x60 mm	140x190x80 mm	260x260x160 mm

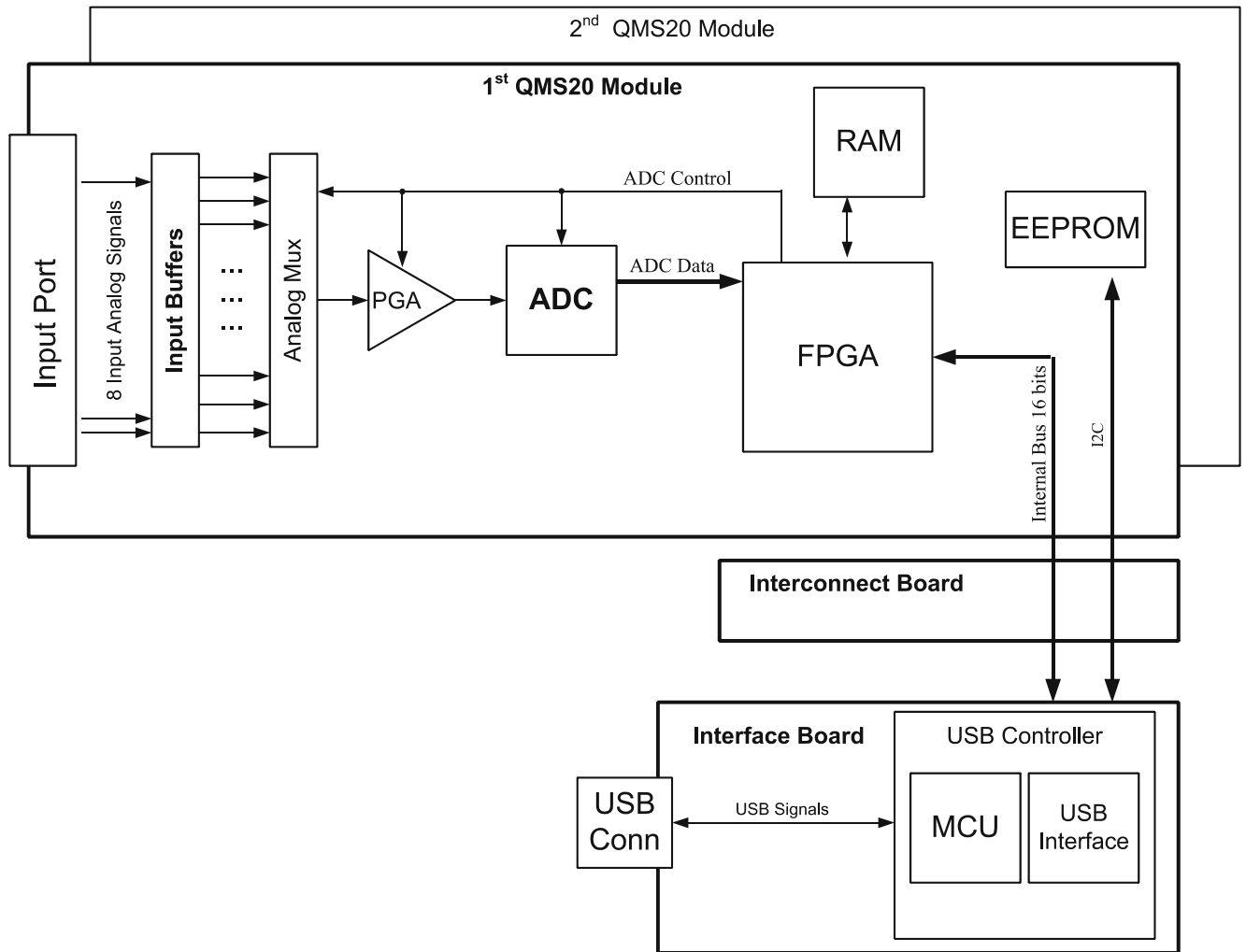
GZ ipfj_ _ \mofhmevghc fh^ eb QMBox20-16 ihdZgh mlhckh Z mju :

- A – mlhckh \ kj ; < – lh _ mlhckh k gylhc djurdhc :
- 1 – hgh\Zb_ dhjmZ
- 2, 3 – fhmeb :PI QMS20 – 2 rl .
- 4 – bglnchZ ieZ I Z. MiZeyl_ Zlhc fhmec b hnskeyl_ kyav k dhfivxlj_ hf ih rbg_ USB
- 5 – KhbgblevgZ ie Z . HhVZ wedlph_ kboggb_ fhmec b bglnchc ieZi .

gmlj b dhjmZ fhme b QMS20 \Zeylk y \ khlh kbogblevghc ieZ u, dhlhZ hfogyl_ fhmeb \ ^ bgh_ mlj hckl\h b h[kvZ wedlpg kdh_ kboggb_ fh^ nec k bglnchc ieZc USB. BglnchZ ieZ miZ ley_ Zlhc fhme_ c b hnskeyl_ kyav mlh ckl\Z k dhfivxlhf ih rbg_ USB.



Модульная масштабируемая архитектура серии QMBox позволяет объединять в одно устройство модули разных типов (АЦП, ЦАП, дискретного ввода-вывода), причем в любых комбинациях. Подробно такие комбинированные устройства описаны на странице <http://www.r-technology.ru/products/automation/qmbox/index.php>



↑ :

Input Port – \ohgh c ptf fhme y.

Input Buffers – \ohgu_ [nri . Hk \k bc \ohgh c bfiqk b hlnlkb_ dhffmlzoh gguo rmf h\ qzh\uo \ohh \.

Analog Mux – qzh\uc fmevl biedk hj , idzgz e y dhffml Zpbb \ohguo qzh\uo bqzh\ .

PGA – ih] pbfmf uc mbebl_ ev \oh^ guo qzh\uo bqzh\ .

ADC – fbdj hbfZ :PI .

FPGA – fbdjhf Z IEBK , kpl pbnh\u_ ehpb_ b fu . Hk\Z miZgb_ \k dhfihggfZ b fhmey , Z lZ \aZfh^ ckb_ f_m fhme_f b Bgljckhc iZc mhckZ QMBox.

RAM – f bdjhfZ HAM Hk ihZ ihfmlh qgmX [n_n_p aZpbx Z gguo ij ^ hliZhc \ Bgljcgmx iZn .

EEPROM – fbdjhf Z IAM. Khl emgm x bgn hfzbx – lbi b \j_ kbx fhme y, dzbh\hgu_ dhwnnpbglu b l.i.

Interconnect Board – kqblevgZ iZ .

Interface Board – bgl_ jckZ iZ .

blugb □ žguo k žžh\uo \ohh\ ih dhfžž k dhfivxlj Z. žb mkjckh kkhbl
ba gdhvevdbō fhme_ c QMS20, žf žlu (ihlhdh\uc beb žgojgguc) fh_ žlv až
ey dž] h fhmey bgb\^ mžvgh .

5. Kbgōjgbažby ž hlu .

k fhmeb , \ohysb_ \ kž mžckZ , žžbjm\k hl žghj žžž , dhlhjc
gžhbk gZ bglj_ cžhc ieZ _ . Ihlwhfm \ ihpk žlu \k fhmeb mžckZ žh
žgojgbabh\žū fh kžc .

Lf_ g_ fg_ , bghž ž\ž ghžhđf h g_ lhevdh žgojgbabh\ž j žhlm \k o
fhmec mžckZ fh kžc , gh b lh qgh ipy až ih \j fgb ž hlm mžckZ d
džhfm -eb[h \grgfm kžl\bx .

Ih mfhež gbx mžckh gžgZ žk iž ^Zguo ihē_ ihemg gby dhfžū
«Klž » k dhfivxlž . Wlž dhfžž fh_ \uihegy\k gdhvevdh fbēē\mg^ . Lhgh_ \fy
bžeggby dhfžū ih^ HK Windows (dhlhž g_ yley\k HK žvghj \fgb)
ižž v až_ g\hafhž h. ey žmž , dhž ghžhđf hgh ipyaZ v žž
žž ij_ ž žguo d džhfm -ebh \g_r gfm kžl\bx , ižhlg žf \gr_ g_c
žgojg bažpbb žž . < wlhf j_ žf_ ey až mž Z žž iž žguo ihē_ \uiheggby
ižžhc dhfž^ u «Klž » ghžh^ bfh ihž hlpž evguc pbnh\hc bfim evk
(ehžžb_ «1» - «0» - «1») gZ dhglžl «SYN» mžckZ . Iž žguo ažn žlk žm
ihē_ hlpžžvgh] h nhglZ («1» - «0»). žbl_ evghv bfim evž (l_ . žblevghk v
ehžžh «0») ^.[. g_ fg_ 50 gk. Ebgby «SYN» ih žygmIž d ib žž bx \g mlž mžckZ ,
ihlwhfm ž y žžbb gmghj bfim evž ž žžgh ižk ažžgmlv ebgbx «SYN» gZ af_ ex .

lždexq gb_ f^ mžfž žgojg bažpbb hmskey\k ij hžgh .

6. Ihdexgb_ mkhckZ .

6.1. Mh\ dZ

Mitc_ l_ QMBox _ ed lgg_ fbd_ fu b d figg lu, m bl evgu d ed l_ l bdbf _ af (ESD). I_ l_ , dZ g_ Z hlm k mkhckh f, ghph bfh gylv k_ dh_ wedlj b_ - g_ , ipdhgmiv_ d aZegghfm dhjmk dhfivxlj_ Z beb g_ v aZeyxsb_ .

Ih_ \julby miZch\db mkj hckl\Z gh [ohbfh m_ \ hlmkbb \b b fuo foZbbo ih \bc , Z lZ d _ m_ \ gZbbq \k o i_ l h\, \oh^ ys bo \ dhfiedl ihZdb mkhckZ . < em qZ hgZgby ih \bc beb giheghc dhfiedl_ bb gh[ohbfh jgh kyaZ_ k nbjhc -ij_ mkhckZ .



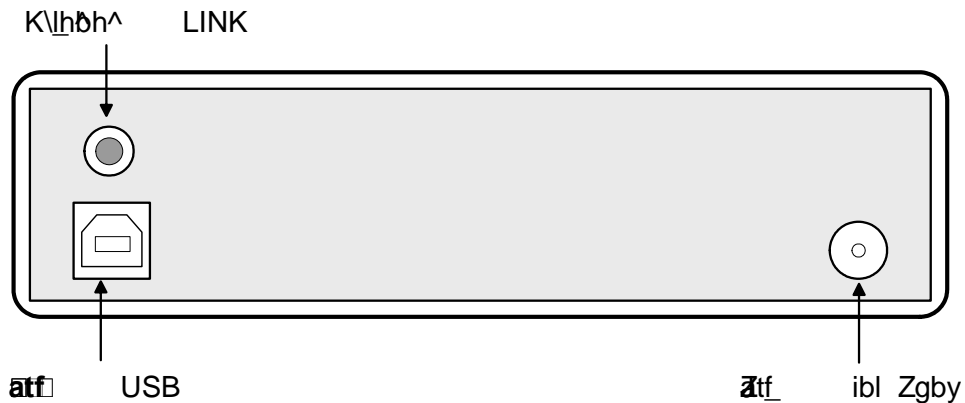
G_ \dex _ l_ mkhckh , bfxs_ _bbfu_ foZb_ ih\ _gby!

6.2. Mh\ dZ ih_gh_ hgby

Fu dhfgmf_ mkh\blv ^_u mkhckZ b ih_gh_ hgby_ gZ dhfivxlj_ a_ , i_ ihdexgb_ d dhfivxlj_ m_ mkhckZ QMBox. ey wlh_ _ \ CD-ij b\h^ dhfivxlj_ b_ , \ohysbc \ dhfie_ dl ihZ b mkhckZ QMBox, b aZnbl _ **setup.exe**. IhZ ffZ -bgZeylhj _Z mkh\ bl gZ dhfivxlj_ _u mkhck , ih_gh_ hgby_ b \k ghphd mx hdmfgl Zpbx . Ih_ wlh_ fhgh ih dex_ v d dhfivxlj_ m_ mkhckh QMBox.

6.3. Ihjhd ihdexgby b hldexgby mlhc kZ .

GZpbgd_ iZeg \b^ aZ_ c iZeb mlhcKZ bQBox:



atf f USB – lbi ; . KlZuc atf ey ihde xgby mlhcKZ dhfvxlj mih rbg_ USB dZf lbiZ : - ; .

K□ □ b□ LINK – aZf ip ihdexg gbb mlhcKZ d rbg_ USB b bZbabj ml h lhf , th USB-ihj dhf i vxlZ ij Zevgh Z khagZ mlhcKh .

atf f ibl□ gb□ – iZgZ g ey ih^ Zq iblZby hl \grgh bkhgdZ ib lZb y, \ohysj \ dhfiedl ihZdb mlhcKZ .

Ihjhd ihdexgby \b mlhcKZ bQBox lZh\ :

1. Ihdexql _ bkhg d iblZby , \ohysbc \ dhfiedl ih Zdb mlhcKZ , d at fm iblZby mlhcKZ .
2. Ihdexql _ bkhgd iblZby d b ifgghj lhdZ.
3. Ihdexql _ atf USB mlh ckl\Z QMBox d USB-ihjm dhfvxlZ k ihfsvx wdZbh \Zgghj dZy USB, \ohysj \ dhfiedl ihZ db mlhcKZ . be_ g aZlvk K\h^ LINK. b iZ evgh gZ dhfvxlj jeh mlZ\egh ihZgh_ hZb_ QMBox, hZbhggZ bKZ hegZ ZhfZb db hihagZ mlhcKh . < bKq j mlhcKZ (Device Manager) heg ih y\bl vky mlhcKh \ jni_ R-Technology Devices, gZfj :

eb Ȧµ mĥckZ g_µ eb iZ blevgh mĥhlegu gZ dhfi vxl _j ,
beb ijbahre ꞑc ip bo mĥhd_ , bo fh gh mĥh\bl v \jmgmx , k .
lbehòb :.

4. lhdexql _ bĥgbd b bĥzh\ d mĥckm – k . i . lh^ dexgb d hfdlm _.

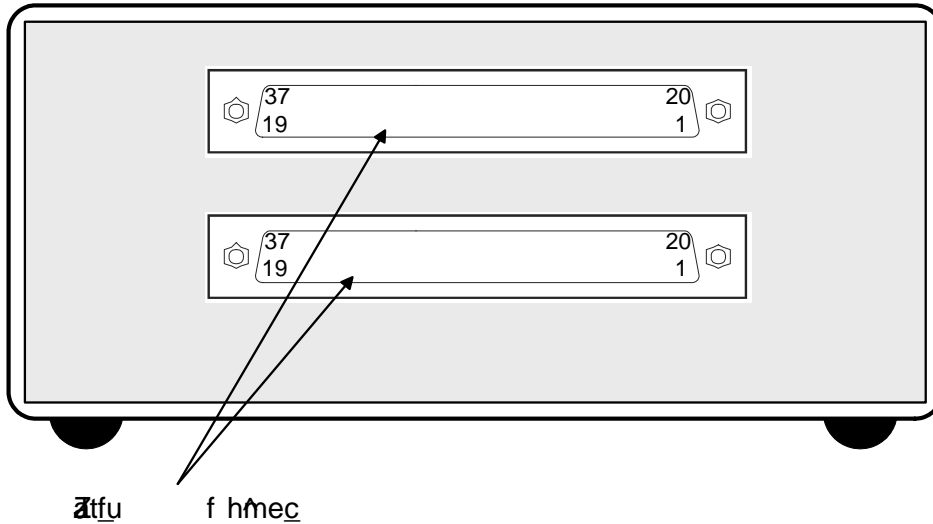
lhjhd hldexgby mĥckZ QMBox lzh\ :

1. Hĥb\gbl _ hfdl (bĥq gbd bĥzh\) hl mĥckZ .
2. Hldex qbl_ mĥckh hl dhfivxl Z .
3. Hĥb\gbl _ bĥgbd iblžby hl b ifgghĥ lhdZ.
4. Hĥb\gbl _ hl mĥckZ bĥg bdiblž by.

6.4. Ihdexgb_ d hfdlm .

g bfg b!!! I b evg ihde xgb_ bklhgbdh \ Zgzh\hj bjeZ — gZhe _
 \zh_ mkh\b_ dhj_ dlghc p lu mhckZ kZ gguo , dhlhj_ ihahe yl_ baZ lv
 fghkZ ihpf_ ip wdk emZI p bb mhckZ .

GZ kmxf_ jkngd_ iZeg \b^ ic iZ geb mhckZ (fh^ ev QMBox20-
 16, khysZ ba mo fhme_ c QMS20):



Dxc f hmev , loh^ysbc \ mhckh QMBox20, bfl_ khc kkguc lohgh c
 pf_ ey ihdexq gby bjeZ\ :

ոգո՞ շ atf fhme y QMS20 hi bkZg \ kmxsc IZ pbb_ , ↑ :
 լձ \oh\ Xn – Yn – lohú n-gjh dnngpbzvgh dǰǰZ ;
 NC – dhglǰ I g_ ihdexǰ ;

N ebgbb	Gag □ gb□	N ebgbb	Gag □ gb□
1	NC	20	NC
2	NC	21	NC
3	NC	22	NC
4	\uoh^ + 6.3 □ (ǰǰh\h_ iblǰ b_)	23	NC
5	\uoh^ - 6.3 □ (ǰǰh\h_ iblǰb_)	24	SYN – \o h^ \grgc kbgohgbaǰ bb ²
6	NC	25	NC
7	NC	26	NC
8	NC	27	\uoh^ + 3.3 □ (pbnh\h_ iblǰb_)
9	NC	28	NC
10	NC	29	AGND – ǰǰh\ǰ afey ³
11	AGND – ǰǰh\ǰ afey	30	\oh^ O8
12	\oh^ Y8	31	\oh^ O7
13	\oh^ Y7	32	\oh^ O6
14	\oh^ Y6	33	\oh^ O5
15	\oh^ Y5	34	\oh^ O4
16	\oh^ Y4	35	\oh^ O3
17	\oh^ Y3	36	\oh^ O2
18	\oh^ Y2	37	\oh^ O1
19	\oh^ Y1		

dnngpbzvgh_ ihdexgb_ bkhgb dZ kǰǰZ ǰbZ mjh\gv kgnǰguo ih fo .
 lhfbfh wih\ , dnngpbzvgu_ \ohú iha\heyxl ihdexǰ v bkhgbd b kǰǰZ լձbf
 hǰhf , իլ լhdb kǰǰzvgu o pic g_ ihldǰb ǰ hǰg hǰbc ih \h^ , ի ih\urZ
 lhghk bafǰbc .

Իլ ihdexgbb bkhgbdh \ ǰǰh\h\h kǰǰZ d m\hckm ghph^ bfh
 ip\ǰk kmxsbo լh f ǰǰbc :

- Իլ dnngpbzvgh f ihdexq gbb baf\k bfgg h ǰghk gǰ_ gbc f^ m
 bg\bj mxsf b gbg\bj mxsf \oh՞ dǰǰZ , I... dnngpbzvgh _
 gǰ_ gb_ . Lf g_ fg_ , ghphbfh ihfgbv , ի gǰ_ ` gb _ □ gbl □ evg □
 ge □ c afeb m□□c□□g□bo o□□o (bg n ag□ gi□ gb □) g□ eg□
 iur□ lv□ m\bf□ bi□ ag□ og□ bg□ e□ .
- Լձevgh _ ihdexgb_ kǰǰZ d dnngpbzvghfm \ohm — wih \k
 l j oih\h ^gh_ bggb□ . Ghph bfh ǰeylv kǰǰzvgu_ ih\hZ ,
 ihdexq ggu_ d \ukdhbfiz gghfm \ohm , b h[sbc ih\h ^ aǰfegby . Lձbf
 hǰhf , blexǰ ihldǰb_ իevrh\ lhdZ ih k] gǰvguf ih\hZ , ǰbZ x s _
 lhghk bafǰbc .
- Իլ ihde x gbb g_ khevdbo bhq gbch\ kǰǰZ d m\hckm èzvgh , իլ bo
 hǰb_ ih \hZ kǰgyebk lh evdh □ □ g□c □□□ — gZ dhglǰl_ **AGND** og□ □
 ǰtfZ . Wih blex qbl hǰh \ǰb_ «a_feyguo i_ lev » , yle yxsbox bhq gbchf
 hihegble vguo ihf_ o .

² Kf . Kbgohgbaǰby_ . kimbfbh_ gZ j ygb_ gZ\oh^ SYN – 0...5,5 < hghklevgh afeb (AGND)

³ gmlp m\hckZ ǰ ǰh\ǰ afe y kǰggZ k a_f e c bgjncZ USB

7. Izhgh_ hgb_ .

Izhgh_ hgb_ mlh ckl \ lb QMBox20 k kl hbl ba emxso dhfihggh\ :
- Izh_ guc iZl QMLab
- Izh_ gh_ hgb_ ey kZfhkhylevghj ihzh\zby (iZl SDK)

7.1. Izhguc iZl _I QMLab.

Izhguc iZl QMLab yle ylk mgb\evguf izhguf bgkmfglhf ey
Zlu k mlhckZ fb lb QMBox. Hg iha\hey_ jblv [hevrbgkh lbi\uo aZ ,
\hagbdZx s bo ij b Zh fbaZbb bafgbc .

iZl QMLab iha\hey_ ipkmiblv dZl_ fm _ ihe_ ihdexgby mlhckZ , h
mZ lby ij hZbk\ b flhe h\ ihembqlv , hZ lZ , \bamZebabh\Z v b koZbl v m_
hldZbh\Zgu_ Zgu_ , ip^ _gg_ dlfuf ZgbpZ baf gby .

- < kZ iZl QMLab loh\l :
- pZj -Zibb ;
 - hZbeehZ ;
 - kdlhZbaZj ;
 - Zhd ilbgc hZ hldb Zgu o.

ilbgZ hZldZ Zguo fh_ \dex qZlv \ k dZebh\dm , mZgb_ ,
\ubqgb_ Zhhlb bafggby ZpZ b l.^.

KhobZgb_ ey ihe mxsc h[Zldb \k \ Zguo ldk\uo b pZu o
nhfZ , iphguo ey \hZ \ hZpbylu_ b lb Zebabh \Zgu_ ih] Zffu hZldb
Zguo (Excel, MathLAB, Cool Edit pro b ^ .)

Izhgh_ hibZb_ iZl QMLab ij b\gh \ ^hdmfgl_ «**QMLab User Manual**»,
dhlhuc fhgh gZb gZ Zl www.R-Technology.ru b gZ ihZyfhf \fk k mlhckhf
CD.

7.2. IH ey khyly _evghy ihzhvby .

Ihfbfh azhggghy ihfghy iaz QMLab \ dhfiedl ihzdb mlj hckl \ QMBox \ dex g iaz _l SDK - wly IH b ndmfglzby , iazggu_ ey ihvah \ ec , kpsboj kaxz kb khggu_ ipbh` gby ey z hlu k mlchkhf . Wly IH khbl ba pbbhd nmgdpcb(API) b ipf_ h\ ihzhvby .

Ihvah \ ev bfl_ \ hafh` ghk kaxz ihghpggu_ ipbhgby , hij_ bjny lhev dh ghevrbf dhebhf pbbhl _guo nmgdpcb. Ip wlyf pbbhlgu_ nmgdpcb gZ bgu lzbh hzhf , th iha\heyxl z hlv k mlchkhf z gbh mghf mihzkm , g_ \ es_ fm lghdhy f b fghih lghh b h[tdlgh -hj bglbhvghy ihzhvby .

Ihgh IH ey khylevghy ihzhvby hibgh \ ndmf_ gl_ «**QMBox Programming Guide**», dhlhuc fh gh gZclb gZ_ www.R-Technology.ru b gZ ihz yfh \fk k mlchkhf CD.

ibe□ gb□: . Mlgh\dZ AZ mlhckZ .

cu mlhckZ bb QMBox mlgh\bZ xly VhfZ bbb ip mlgh\d_ ihfgh hgby kbbZ , \ohysf \ dhfiedl ihbb mlhckZ .bb Au mlhckZ g_ jeb ievgh mlgh\egu gZ dhfivxli_ , beb ihbahr _e hc ip bo mlgh\d_ , bo fh gh mlgh\blv \jm qgmX.

DZ ipe h, HK Windows ip hggh_ gbb gh\hh mlhckZ aZnblv FZ lj gh\hh hghm\zby (Found New Hardware Wizard). < wlf kmqZ gmgh k\W h mdzbyf , hldz\bk v hl ih^ dexg by d maen Windows Update b mdz \ dz_ fZ khhgb y AZ iz dm«\DRV» gZ CD, \ohysf_ \ dhfiedl ih bb mlj hckl VZ.

HK Windows fh_ g_ aZnblv Vhfzq bb FZ lj gh\hh hghm\zby (Found New Hardware Wizard) , \uZ ip wlf \ hpe m\hf egbc (FZ -gba mwdzZ) khfgb_ h ihf_ k Ahf :

< wlf kmz gmgh aZnblv bkg Mhck (Device Manager). ey zguo _ kbc HK Windows bkg mlhck aZn blk ih -fghfm . Gp f_ , ey Windows 7 fhgh aZnblv \ h debdgm\zc dghidhc furb gZ bdhgd_Dhfivxli_ , z_ - K\hckZ , z_ - bkg Mhck .

< bkg mlhck QMBox m\ lu pyv \ kb_ mlhck dz Gba\lg h_ mlhckh , beb Mh ckh , fzs_ k hrbpZ . Gng debdgm\ gZ gzf izc dghidhc furb b \u Z «Update Driver Software»:

le□ wihh aān kly FZ Ij gh\hh hhmh\zby (Found New Hardware Wizard):

Gmgh \u[F «Browse my computer for driver software» b mdz\ \ dā k_ fīZ
nehgby AZ iāim «\DRV» gZ CD ba dhfie _dlZ ihzdb mhck \Z.
ē_ gh [ohbfh ke\W ihādz FZ (Wizzard). Ihk e_ mkrghc mkz h\db
AZ \ bkg mhck hegh ihy\lvk y mhckh \ jmi_ «R-Technology
Devices», gdfj :

Wih hagz , th mhckh QMBox iēvegh hihagzh dhfivxlhf , ē_ j
mgh\leg , b mhckh jlh\h dā_ .
< ihēbb , ip ihdexgbb mhck \Z QMBox d jhf m USB ihjm dhfivxl_ Z ,
Windows fh_ gh\Z hgzhbl v mhck \h QMBox dā “gba \gh_ mhckh ”. LhZ
hibgmx \ur_ ihpjm mkz h\db AZ gmgh mē ih\ hplv .

